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**REPORT  
OF  
COMMERCIAL/INDUSTRIAL (C/I) PROGRAM  
OPTIONS AND OPPORTUNITIES  
AT  
PLUM ISLAND ANIMAL DISEASE CENTER  
AND  
NATIONAL ANIMAL DISEASE CENTER**

**PREPARED FOR  
THE SCIENCE AND EDUCATION ADMINISTRATION  
UNITED STATES DEPARTMENT OF AGRICULTURE**



**JANUARY 25, 1980**

**CONTRACT NUMBER 53-3K06-0-37**



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## PART I

### INTRODUCTION AND SUMMARY

#### 1.0 PURPOSE AND SCOPE OF PROJECT

This report is in response to contract requirements to assist the Science and Education Administration in evaluating the various options available for implementing the procedures of Office of Management and Budget Circular A-76. The Commercial/Industrial (C/I) type activity program is directed at government activities that can usually be performed by the private sector.

The program is specifically designed to complete a comprehensive review of all commercial/industrial type functions over a reasonable period in each federal agency. This means that all designated C/I activities must be subjected to a formal review in the next three years unless specifically exempted by appropriate authority.

The Science and Education Administration has attempted to identify C/I activities at each of its seven largest operational facilities and to establish a specific schedule for reviews. Faced with many management and operational considerations, it was decided that the services of a consultant specializing in C/I program management should be used to provide an independent appraisal of the opportunities and options available to management.

Advanced Technology, Inc. (ADTECH) is charged with the responsibility of reviewing the activities at SEA's two primary animal disease research centers, The Plum Island Animal Disease Center (PIADC) and The National Animal Disease Center (NADC); since their research activities, organizations and operating procedures are similar.

The overall project will be accomplished in four phases which involve the following:

- Identification of C/I functions and review option packages
- Development of Statements of Work for firm bid offer solicitations
- Preparation of the government estimate - for cost comparison



- Assistance in realignment of contract administration and management activities

The tasks involved in Phase I include a review of support services activities at each location, the development of review option packages based on identified C/I functions and operational considerations, and an assessment of the impact each option would have on the research mission, support operations and employees.

In beginning the project, ADTECH found that there had been a previous SEA study (CAMAP Study) which attempted to establish broad support areas that should be considered for early C/I review. However, there has been no final agreement among managers at various levels as to which specific activities would be reviewed in fiscal year 1980. The previous study did not provide an in depth detailed identification of C/I functions and subfunctions as they are defined in OMB Circular A-76. However, the study did serve its purpose and helped to identify many management issues.

ADTECH teams, experienced in support services management and commercial/industrial program support visited both disease centers in January 1980. The primary effort was to collect organizational, manpower and cost data relating to each mission and support function at each site. This data was used to clearly identify every function that falls within the context of C/I definition and to evaluate the special factors in the performance of support services. It should be noted that a formal inventory as required by OMB Circular A-76 and the Department of Agriculture had not been prepared for either location. Therefore, the detailed identification of C/I functional areas serves two purposes; to provide the basic data for preparation of required C/I inventory; and to permit construction of option packages needed to schedule formal C/I reviews during the next three years.

In addition to the development of C/I review options, ADTECH conducted a review of the potential service contracting interest to determine the extent and limits for any specific solicitation.

## 2.0 GENERAL FINDINGS AND RESULTS

ADTECH found that there is a great similarity in both organization and support service activity at the two animal disease centers surveyed. Each center's operations



is dominated by the requirements to adhere to biological safety procedures which effect almost every aspect of work performance.

As a result of the site investigation, ADTECH was able to identify a long list of common commercial/industrial functions and subfunctions which should be included in the SEA inventory and C/I review schedules of each location (Table I). These support activities account for more than 50% of manpower resources at PIAC and almost 40% at NADC. Some functions are more closely related and involved with mission research than others, but in each case there is an opportunity to potentially provide support at reduced costs to the government. The C/I functions identified at each location are briefly described in Part II, (PIADC) and Part III, (WADC) of the report.

In constructing the various option packages, ADTECH took into consideration the views of the center and regional directors as well as the facts and concerns obtained directly from first line supervisors and individual employees. It is fair to say that at the lower levels the concerns are much more personal since their jobs are involved. However, ADTECH employees enjoyed exceptional cooperation on the part of everyone contacted. Our personnel had an opportunity to observe support operations and the physical and working environment in almost every function at both locations.

The option packages developed independently are similar in many respects. This is due in part to several key factors:

- Both organizations are similar in structure and size of support activities.
- No major changes in contracting of support functions have taken place recently (There are a few minor exceptions).
- Both locations operate with similar biological safety procedures.
- o Most C/I functional areas were relatively efficient due to past manpower reductions and controls.
- o Most functions identified have been successfully contracted elsewhere under similar conditions.
- o There is a high degree of contractor interest in general and engineering support functions.





TABLE I  
LIST OF C/I FUNCTIONAL ACTIVITIES PRESENT  
AT THE SEA SITES SURVEYED IN THIS REPORT

C/I Functional Activities
<ul style="list-style-type: none"> <li>• ADP Services</li> <li>• Animal supply services</li> <li>• Biological safety control</li> <li>• Buildings and structures maintenance and repair</li> <li>• Communication services</li> <li>• Dispensary</li> <li>• Engineering and Planning Services</li> <li>• Fire protection and prevention</li> <li>• Food service</li> <li>• Fuel storage and handling</li> <li>• Guard services</li> <li>• Janitorial services</li> <li>• Laboratory support services</li> <li>• Laundry services</li> <li>• Library services</li> <li>• Marine craft operation and maintenance</li> <li>• Motor pool operation and maintenance</li> <li>• Operation and maintenance of boiler plant</li> <li>• Operation and maintenance of electrical systems</li> <li>• Operation and maintenance of sewage plant</li> <li>• Operation and maintenance of steam plant</li> <li>• Operation and maintenance of waste plant</li> <li>• Operation and maintenance of water plant</li> <li>• Records and files maintenance</li> <li>• Roads and grounds services</li> <li>• Supply</li> <li>• Technical photography/illustration</li> <li>• Transportation</li> <li>• Warehousing</li> <li>• Word processing services</li> </ul>



As a result, the options fall into four main categories. ADTECH did not attempt to develop an option to review the entire support base at one time. Our approach was to construct a family of options which, in some cases, could be reviewed in conjunction with others and some packages which could stand alone. Others should not be reviewed unless a larger package was converted earlier or is being reviewed at the same time. The primary reasons for this approach are the considerations of economics of scale in attracting responsible full service employers as contractors and to provide flexibility by keeping similar and compatible small functions in separate groups that can be added as increments. Impact of current employers and potential dollar savings were also key factors.

The four major package categories in both cases are:

- Larger general support activities (guards, warehousing, shop and motor maintenance, general engineering support).
- Utility plant and systems operation and maintenance.
- Smaller general support or administrative activity groups.
- Laboratory engineering and general support in secure areas.

Management has the opportunity to select one or a combination of options each of which has distinct advantages and disadvantages over the other.

### 3.0 SUMMARY AND COMPARATIVE IMPACTS

In the following displays the essential summary data relative to options developed for each location is presented. A detailed description of each option is provided in Part II and Part III and is supported by detailed staffing data contained in Appendix A and B.



<sup>1</sup>No Impact - Pending further study of the sensitive issues.

Options	Positions		Personnel		Annual Savings (\$) (Estimated Minimum)
	Authorized	Net Reductions	Current Staffing	Est. Adverse Impact	
<u>Package One</u> Outside Support	52	49	48	21	108,338
<u>Package Two</u> Utility Systems	22	20	22	7	57,521
<u>Package Three</u> Animal Supply and General Support	9	9	9	3	18,567
<u>Package Four</u> Administrative Support	9	9	9	7	11,798
<u>Package Five</u> Marine Operations	11	10	9	5	25,406
<u>Package Six</u> Engineering and Laboratory Support	74	71	70	56	167,009
<u>Package Seven</u> Laboratory Animal Care, Biological Safety, and Admin- istrative Support	35	<sup>1</sup> N/A	35	<sup>1</sup> N/A	<sup>1</sup> N/A
TOTALS	212	168	201	99	388,639

TABLE II  
SUMMARY OF OPTION PACKAGES FOR PIADC



Options	Positions		Personnel		Annual Savings (\$) (Estimated Minimum)
	Authorized	Net Reductions	Current Staffing	Est. Adverse Impact	
<u>Package One</u> Outside Support	34	31	30	24	71,458
<u>Package Two</u> Boiler/Waste Plant and Outside Shops	37	35	34	20	96,844
<u>Package Three</u> Animal Supply	22	21	22	17	48,087
<u>Package Four</u> Inside Support Services	18	16	16	13	35,213
<u>Package Five</u> Planning and Inside Support	31	29	30	20	70,813
TOTALS	142	132	132	94	322,510

TABLE III  
SUMMARY OF OPTION PACKAGES FOR NADC





#### 4.0 MAJOR ISSUES

During the course of this investigation, a number of concerns were expressed by management throughout SEA.

- Critical Functions - Contractor Strike Potential

ADTECH discussed this issue with several service contractors. They made the following points:

- They only hire fully qualified and registered or certified personnel for critical operations such as power and boiler plant operations.
- The government should expect the same level of dedicative and quality of service from contract employees as from the government work force.
- Strikes are possible if a union is involved—if a function is critical to operations or emergency conditions exist it can be stopped in a number of ways (court action-replacement).
- Large contractors have the capability to react with backup personnel and to fire uncooperative employees quickly.
- Anti-strike clauses are used in employment contracts where possible.

- Adverse Impact on Employees and Economy

Essentially, the government is involved in contracting for the same level of services it expects to receive from the government work force under the firm bid offer comparison procedure. While contractor approaches usually involve cutting some costs by using people qualified in two or more skill areas, the general level of effort needed tends to gravitate toward the highest employment level permitted within the contract. This fact coupled with the requirement to pay a prevailing wage usually results in little or no impact on the overall local economy. Contractors generally depend on hiring displaced government employees and in fact, are required by A-76 to provide a first right of refusal. The net result is that overall impacts, other than loss for security



from government employment, should not be that severe since there is no gross reduction in level of effort involved.

- Biological Security

ADTECH has listened carefully and observed the special nature of this safety problem at each location. In discussing this with several contractors, we find they are aware and accustomed to operating under similar conditions. In Part II a comparison in the Ft. Detrick-Litton Industry situation is provided. Another firm indicated it is supporting EPA laboratories with similar regulations. Contractors are quick to point out their people are just a capable of complying and are subject to quick direct actions if they violate procedures.

- Funding and Costs Considerations

Several principal managers expressed concern for the relative costs of doing business by contract.

It should be understood that under the firm bid offer cost analysis procedure overall government costs must be at least 10% higher than the winning contractor bid. What must be understood is that government costs include certain benefits (like retirement) that are not paid from the agency operating budget. Also costs of retained contract administrators become added to the cost of doing business. The net result is that even though there is an overall savings of 10% to the government, there may be an increase in current outlays to the operating agency or activity. This occurs because contract payments include provisions for long-term benefits to say nothing of one-time costs for adversely effected employess.

The agency should consider the availability of funding in the decision process where various levels (options) may exceed available funding needed to implement the program.



## 5.0 OTHER FACTORS

### Manpower Data

ADTECH constructed the proposed option packages using the best data available at the centers and at headquarters SEA. Actual constructs of current personnel staffing, authorizations and organizational structure were developed in coordination with research center managers. We found a wide variance in the data collected in the field and that available at HQ. SEA.

### Functional Statements and Operating Procedures

There is a noticeable lack of formal organizational and functional statements at both locations. With the exception of the safety area, standard operating procedures are weak or non-existent. This will make it extremely difficult to construct accurate statements of work in many functional areas without detailed information related to the standards of performance expected by management..

### Cost Data

While overall budget data is readily available, actual cost information is not, except for personnel. This is due to the fact that funds are not always costed against a specific function or subfunction. The impact is that material and other expenditures may not be clearly identifiable and available for use is the C/I cost comparison. Additional discussions with SEA financial managers and the appropriate audit agency will be necessary. In order to provide an early estimate of projected annual savings ADTECH has assumed a 10% savings based only on total personnel costs in each option group. This is a minimum savings estimate which can be adjusted after all other costs are known. However, the cost figures do provide a reasonable order of magnitude for option evaluation and decision purposes.



## PART II

### PLUM ISLAND ANIMAL DISEASE CENTER (PIADC)

#### 6.0 GENERAL BACKGROUND

The Plum Island Animal Disease Center, located approximately one mile off the coast of Long Island's northern branch serves the nation as the primary research facility for the study of animal diseases which are not currently known to exist within the continental United States. The Island provides an isolated location where biological security is a primary consideration in the conduct of research operations and support at the facility and its mainland support activities.

The Plum Island facility was transferred to the Department of Agriculture for research activities in 1954 and has essentially retained the same mission for the past twenty-five years. Starting with facilities which included administration buildings and some coastal fortifications, the Department of Agriculture expanded the research facilities with the construction of two major biological research laboratories and supporting utility plants and systems. Over the years, additional smaller facilities have been added so that today the total physical plant consists of 55 buildings and structures on 850 acres in three parcels. (Figure 1). With the exception of several new industrial type structures, most of the facilities are quite old and represent a continuous challenge to facilities maintenance personnel. In our judgement, the physical plant appears to be in relatively good condition when compared to other federal facilities of the same age and complexity which we have observed.

#### 6.1 Plum Island Organization and Special Considerations

The Science and Education Administration of USDA employs approximately 332 full-time and temporary employees. As such; the agency is a major employer in the local region and accounts for approximately 20 to 25% of the major employment in the immediate area. At any one time, there may also be 10 to 30 contractor employees engaged in temporary support activities such as minor maintenance and repair projects or installation of technical systems at the facility. In addition, from time to time, major construction brings large numbers of construction workers to the island.





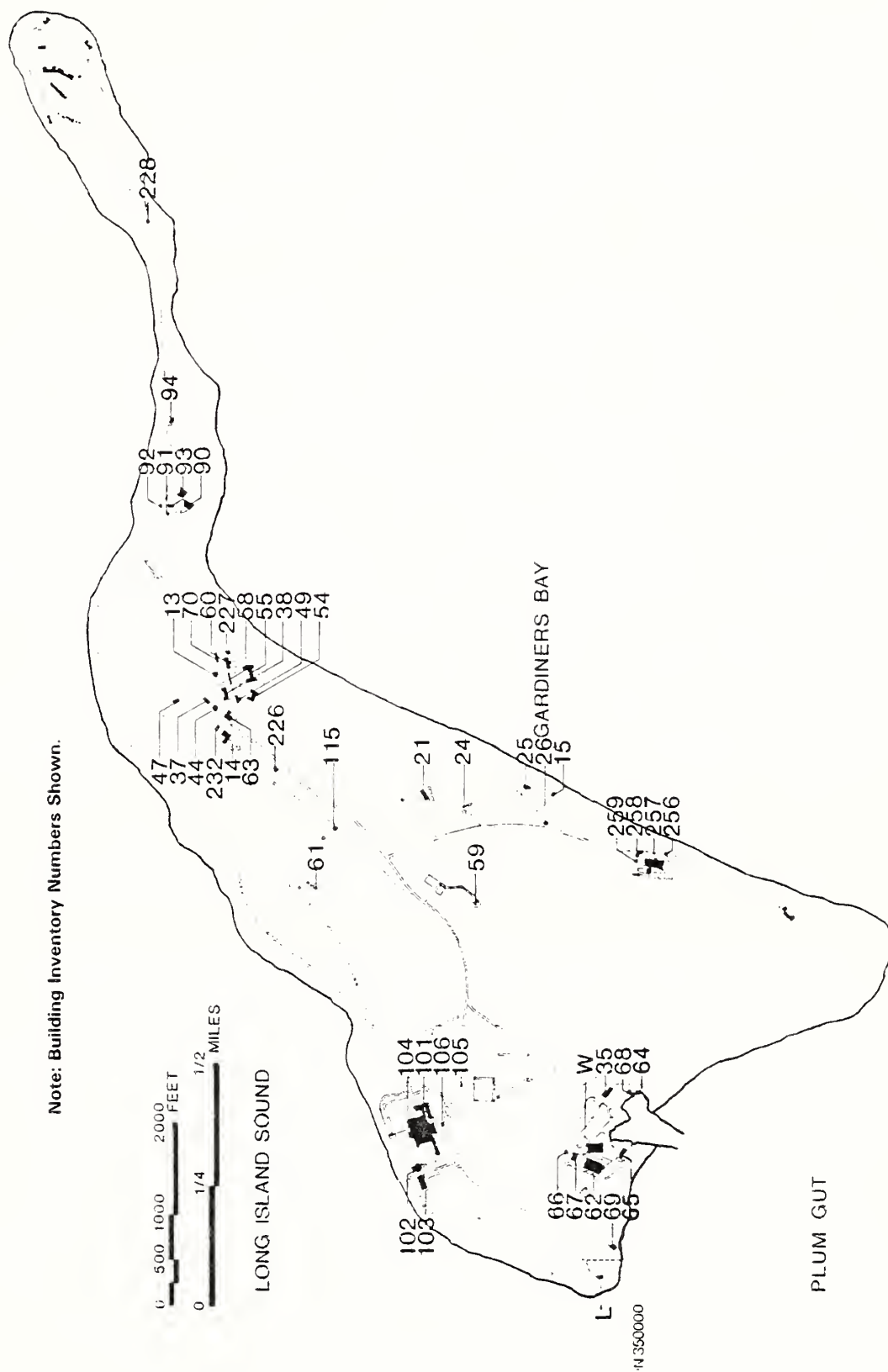


FIGURE 1  
PLUM ISLAND FACILITIES AND PLANT LAYOUT



Due to biological security requirements, control of people and material on the island and between facilities is a major factor in evaluating work force efficiency, and the costs of doing business. Likewise, in reviewing Plum Island support services activities which fall within the context of Commercial/Industrial type activity definitions as prescribed by OMB Circular A-76, the operational and safety considerations become a major factor. Essentially, the Plum Island facility has been 100% government-employee operated since the Department of Agriculture began operations with a few exceptions noted over the years.

The current organization for research and support is shown at Figure 2. Currently, there are approximately 289 permanent full-time, and 43 temporary (various categories) employees authorized at this facility. Of the permanent employees, 132 are in professional grades and the remainder in wage grade category. A detailed breakdown of the current manpower staffing is on table IV. It is difficult to specifically distinguish between pure research and general support positions in some cases. In the following paragraphs, ADTECH has identified those activities which should be subject to the provisions of the Commercial/Industrial Activity Review (C/I) Program, unless otherwise exempted by the Secretary of Agriculture and OMB. Pure mission functions account for approximately 140 employees, while support service activities involve more than 192 people or 58%, some of whom are essential to management even if the basic services would be provided by contract at some future date.

## 6.2 ADTECH Focus and Special Interests

In conducting this review, ADTECH personnel visited each activity involving support services to discuss and observe the scope and methods of operation, and in particular, to objectively assess the relationships of support activities with research activities. The criticality of support to overall mission and specific research projects, operating procedures, biological safety controls and other considerations affecting support roles were reviewed. ADTECH has also compared organizational features and support activity procedures at Plum Island with those at the National Animal Disease Center, Ames, IA, and those used to support laboratory research at the Department of Health, Education and Welfare's biological research laboratory at Ft. Detrick, Frederick, Maryland, where the same or higher degree of biological safety is required. However, one unique feature of the Plum Island facility is that operations



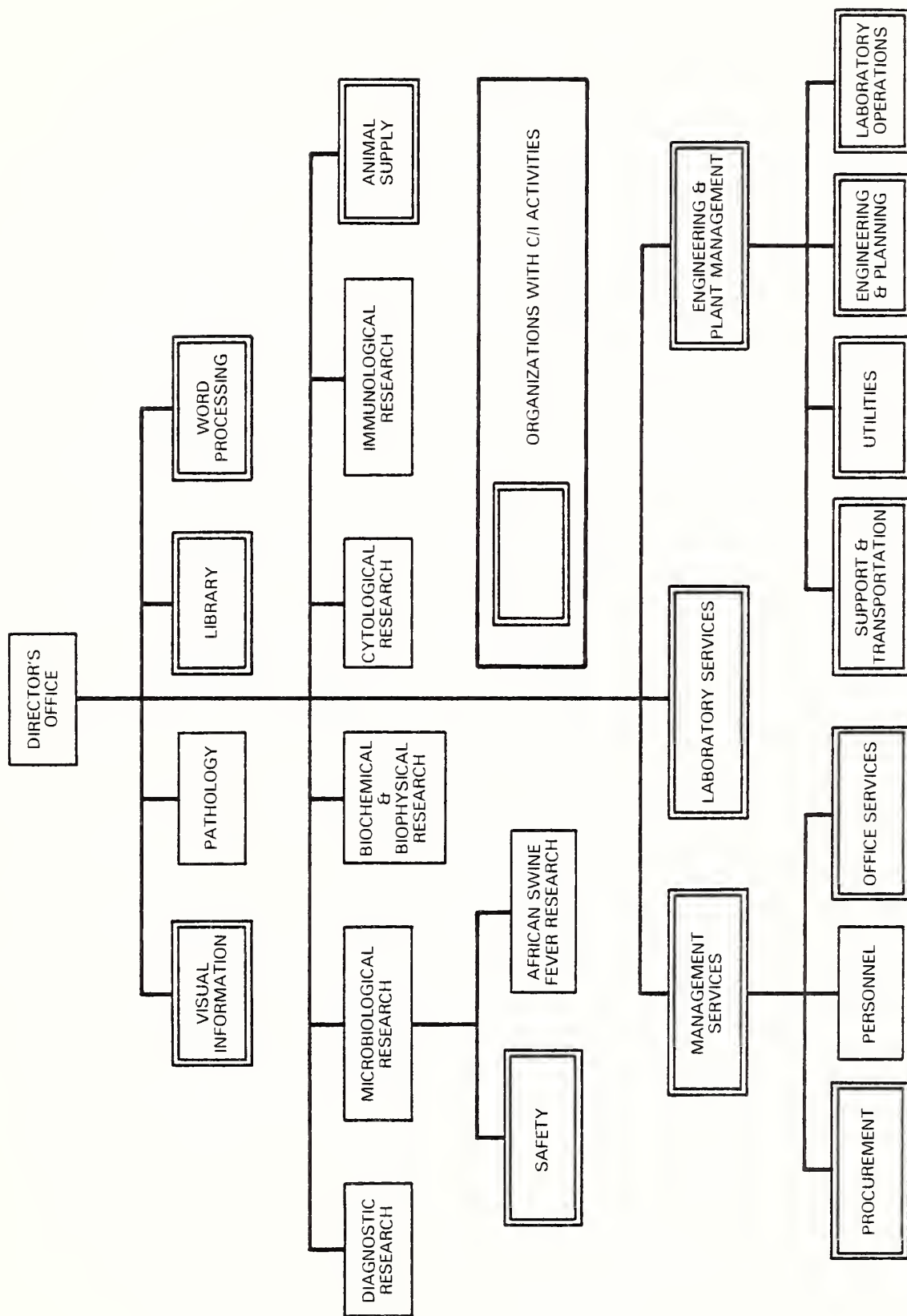


FIGURE 2  
PIADC ORGANIZATIONAL STRUCTURE



ORGANIZATION	PFT		PPT		OTHER <sup>1</sup>	
	GS	WG	GS	WG	GS	WG
Office of the Director	8		2		6	
Library	2					
Management Services	22	14	2	1	3	
Biological & Biophysical Research Lab C	13	2			1	
Cytological Research Lab B	9	2			1	
Microbiological Research Lab A	6	7			1	
African Swine Fever Research	4				2	
Diagnostic Research Lab 257	22	8			4	2
Biological Research Lab D	11	118			1	1
Engineering & Plant Management						
— Office of Chief	6	3			3	
— Boat Operations		10				
— Buildings & Grounds		18		1		
— PM&O		64				
Safety	25				9	
Animal Supply	2	13				
Laboratory Services	2	8	1		1	1
<b>TOTALS</b>	<b>132</b>	<b>157</b>	<b>5</b>	<b>2</b>	<b>32</b>	<b>4</b>

<sup>1</sup>Includes temporary employment and special programs.

TABLE IV  
STAFFING – PLUM ISLAND ANIMAL DISEASE CENTER





are greatly dependent on availability of reliable ferry transportation and the impact of severe weather conditions.

### 6.3 Operational Efficiency Improvement Considerations

ADTECH also examined individual support functions with the view of improving operational efficiency. As a part of any formal C/I review, it should be assumed that various options to reorganize and reduce operating costs have been taken, and that near maximum efficiency is or can be achieved by the existing government work force. ADTECH personnel in reviewing the separate support service activities observed very few opportunities to further reduce the level of effort in any one function or to combine disrelated functions to achieve additional efficiency. Further reductions of the work force would likely result in unsatisfactory performance of the support with shifting some of the work to contract support. On the contrary, ADTECH found that a desire to improve the quality of support was widespread, i.e., janitorial effort from one to two man years. The major factors contributing to this conclusion are:

(1) In most functions, the level of effort is quite small; two to five man years, thus eliminating a great degree of flexibility.

(2) Many of the larger support functions, i.e., guard service, fire protection, utility plant operation, are manned on a shift basis with a minimum diversity of required skills and level of effort per shift.

(3) Operational and biological safety procedures limit mobility of personnel to operate between "clean and contaminated" areas. Standby requirements for various skills to operate in clean areas limit flexibility in certain functions.

Within the time frame and scope of the Phase I study effort, ADTECH was not expected to perform indepth analysis of each function's operational efficiency. A review, for example, of work management procedures in Engineering and Plant Management Activities indicated that many more management procedures and improvements may be possible. The same is true for vehicle maintenance, technical warehousing and stock control. However, it is doubtful that administrative improvements and streamlined operations would result in a reduction of work effort or space savings in any one functional area. However, productivity would be increased. There is no question that administrative procedures will be improved if the time, manpower, and



money needed to implement them were available. It should be noted that no formal functional statements or management objectives exist for each separate activity other than those contained in each supervisor's position description.

There are several support service functional areas where a detailed examination work efficiency may be needed. ADTECH's comments are included later in the discussion related to the factors contributing to potential conversion of each function to a contract activity. These areas include; engineering and planning, laboratory operation support, and marine operations and maintenance, plus motor pool and technical supply.



## 7.0 IDENTIFICATION OF COMMERCIAL/INDUSTRIAL TYPE ACTIVITY AT PLUM ISLAND

The primary purpose of this Phase I Study report is to identify package options for review program implementation during FY-80 in consideration of various operation impacts, the total C/I review program, and realignment considerations aimed at providing better operational efficiency.

OMB Circular A-76 specifically identifies the categories of commercial-/industrial functions that are to be subjected to the C/I review process under the firm bid offer procedure unless specifically exempted by meeting criteria established in the circular. The Department of Agriculture has implemented the program through USDA Administrative Regulations (Chapter 6). In turn, the Science and Education Administration has issued several letters requiring the development of a specific C/I inventories which identify certain quantitative data on each function and the schedule for accomplishing the required reviews during the next three fiscal years.

ADTECH's investigation shows that a total inventory as prescribed by Circular A-76 and implementing instructions have not been constructed for Plum Island to date. Therefore, one of the first steps in this project was to clearly identify those C/I functions which in our judgement fall within the definitions provided in the circular.

### 7.1 Specific C/I Functions and General Descriptions

In the following paragraphs, ADTECH has identified over thirty functions and subfunctions which fall within the commercial industrial type activity definition. The descriptions provided are general and functional in nature are not intended to describe every aspect of the activity or special operating conditions which are discussed in later sections of the report. Likewise, the order in which they are presented in this section, is not based on any particular priority or option arrangement but is functional in nature. It is ADTECH's understanding that all of these functions should be included in the C/I Inventory Review Program unless specifically exempted by appropriate authority.



### 7.1.1 Engineering and Plant Management Activities

This organizational grouping at Plum Island represents the largest single set of interrelated and separate functions or subfunctions defined as Commercial/Industrial activities.

- Engineering Planning/Construction Management

Provides management, coordination and supervision for all engineering plant operation and maintenance and construction management activities. Is responsible for facilities program development and execution. Administers all engineering, construction, and motor pool maintenance contracts. Supervises marine operations and maintenance activities. Serves as the nerve center for facilities engineering work management, priorities and reporting.

- Buildings and Grounds Support

Consists of individual craftsman (carpenters, electricians, and sheet metal workers etc.) required to provide general maintenance for structures and to operate engineering equipment in support of roads, grounds and utility system maintenance and repair. Operates support shops for all crafts and some fuel storage activities.

- Laboratory Operations Support

Special sections organized to operate craft shops with skilled craftsman (plumbers, electricians, refrigerator and equipment maintenance mechanics) inside secure facilities. Performs building and special equipment maintenance and minor repair projects in two major laboratories. Operates boiler and decontamination facilities in self contained laboratory building 257.

- Utilities Operation and Maintenance

This section performs standard services in nine subfunctional areas operating steam and standby electrical generator plants on a shift basis,





supplements commercial power during critical periods, provides emergency capability for systems and equipment maintenance inside secure facilities during night shifts, maintains surveillance over outside plant utility distributing systems, and operates certain fuel storage facilities. Manages the following major subfunctions:

- o Electrical power plant operations and maintenance
- o Electrical Distribution System Maintenance
- o Steam plant operations and maintenance
- o Steam distribution System maintenance
- o Water plant and distribution system operations and maintenance
- o Sewage plant operations and maintenance
- o Decontamination plant operations and maintenance
- o Sewage line operations and maintenance
- o Fuel storage and distribution system operations and maintenance

#### 7.1.2 Transportation and Automotive Maintenance

Formally, part of the Support and Transportation Section, Engineering and Plant Management this activity perform in two distinct C/I functional areas.

- Marine Operations and Maintenance

Operates on a shift basis three government owned boats (passenger ferry, freight boat, and utility craft) between the mainland and Plumb Island. Is responsible for routine boat maintenance, schedules major overhauls, and repairs performed by contract.

- Motor Pool Operations

Consists of one automotive mechanic and vehicle inspector who administer automotive maintenance contracts involving a three-man year level of effort for approximately 34 vehicles and engineer equipment items operated only on the island proper.



### 7.1.3 General Support Functions

This group consists of nine separate functional support areas that have an general support role to play in the conduct of operations at Plum Island.

- Guard Services

Provide on a shift basis for the physical security of the island operating both on foot and vehicle patrols. Operate entrance access to the island and laboratories, manage security pass control system and control personnel access in all areas, supervise decontamination activities on dock facilities and control movement of vehicles and material on and off the island. Operate under supervision of Safety Officer.

- Biological Safety Activities

Perform access control duties into and within designated laboratory areas. Provide technical safety/security advice and surveillance for laboratory facilities and other areas, perform tests for contamination, assist in movement and decontamination of people, material and equipment entering biologically secure areas. Operate under supervision of Safety Officer.

- Fire Protection and Prevention

Operate fire protection equipment on a shift basis (three fire trucks), assists in maintenance of fire fighting equipment and perform inspection and fire prevention duties as prescribed by the Safety Officer. Performs rescue and limited first aid emergency assistance.

- Technical Warehousing and Supply

Operates on island general supply and storage activities consisting of storage, inventory, issues and delivery of general supplies for laboratory research (uniforms, glassware, chemicals); facilitates maintenance (lumber, pipe, wire), motor maintenance (oil, parts, etc.); and general admini-



strative (paper equipment and emergency fuel supply). Assists in transport delivery of animals and animal feed received on the island as part of material security procedure. Maintains stock card system for routine reorder of supplies and completes receiving documentation. Operates under Procurement offices.

- Material Receiving and Transportation

Operates mainland receiving facility. Receives material supplies and animal feed and bedding and transports to Plum Island. Transports animals for Brookhaven holding facility, operates limited storage area, maintains seven vehicles and provides administrative transportation for mail pickup and movement of official visitors for terminals as far as New York City. Performs on unscheduled basis to receive or deliver critical material and personnel. Inspects and holds major items of equipment before shipment to the island. Operates under procurement office.

- Food Service

Operates limited food service facilities mainly during lunch meal. Provides for emergency food service in event of prohibitive weather or other emergency conditions. Operates cash and employee meal receipt system under the chief of offices services.

- Janitorial Service

Currently, a one-man year level of effort operating under the chief of office of services. Performs duties in administrative offices.

- Laundry Services

Laundry services are provided at three separate locations. The "outside" laundry support, is not directly connected with laboratory facilities, although it does support animal supply and some other miscellaneous requirements. The two laundry facilities inside building 101 and 257 deal with highly contaminated clothing and other material. Generally confined



to a single location where commercial washers and dryers are operated. Clothing is delivered by safety and research staff personnel to laundry areas. The outside laundry operates under the chief of office services while "inside" laundry are part of the laboratory services organization.

- Animal Supply and Care

The animal supply operations involve the care and maintenance of large and small animals in clinically clean facilities as well as the transport and delivery of animals to laboratory facilities. Small animal supply is in the process of being converted to an off island procurement arrangement.

- Dispensary

Operates during daytime and is manned by a full-time occupational Health nurse who is backed by two other WAE nurses. Functions under the safety office and is responsible for care of employees involved in research and support activities. Schedules physical exams and maintains health records.

#### 7.1.4 Administrative/Clerical Support

This group consists of seven separate small C/I functions which generally support the central administrative staff operating directly under the office of the director or the chief of office services.

- Word Processing Center
- ADP operations
- Central records and file maintenance
- Communication switchboard operations
- Carrier service (on island)
- Technical library
- Visual information (photography)





## 8.0 COMMERCIAL/INDUSTRIAL REVIEW PROGRAM ISSUES

In the previous section ADTECH identified those functions performed at Plum Island that in its judgement fit the definition of a commercial or industrial activity under the current rules. However, specific operational and geographic factors must be considered in the development of a reasonable approach for conducting all C/I reviews over the period of the next three years.

The burden of justifying exceptions for excluding functions identified from the firm bid offer review process lies with the Department of Agriculture management structure. ADTECH understands the positions previously established in this regard and is sensitive to impacts and preferences established by management. A balanced approach that will enable management to construct an orderly and manageable C/I review program is necessary for successful implementation from the outset.

Current policy does not dictate that all functions be reviewed in a single year even if a total support package is feasible or justified from an economic and mission point of view. The door is open to obtain exceptions when specific criteria is met.

It is ADTECH's opinion that a major portion, if not all, of the support services functions identified above can be successfully contracted and operated in conjunction with government research activities at Plum Island without a substantial adverse effect on the local economy. This assumes that operational and security considerations can be met and that a competent and responsible contract employer can be obtained through the procurement process.

One of the most significant factors effecting the efficiency of the work force at Plum Island in the biological security requirements. The necessity to organize and operate under special safety conditions and to control personnel movement is a prime factor in any decision to contract for support or to consider other more efficient operating arrangement. To a large degree, options such as providing all general support from outside the laboratory areas become unworkable when the level of effort dictates a need for a dedicated work force or a continuous commitment for a particular service. Conversely, when support to the laboratory area is general in nature, and or provided on an intermittent or emergency basis there is really no sound justification to prohibit organizational realignments or performance by contract due to existence of special security procedures.



## 8.1 Security Impact on Emergency and Plant Management Activities

Of all the commercial/industrial type activities at Plum Island, the engineer and plant management organization and its operations are most constrained by security requirements. This could in turn be used as justification for not contracting major elements of this functional area. However, in developing the C/I review option packages presented later in this report, ADTECH thoroughly considered these special operating conditions. In the course of our investigation, a number of key observations were made. While examining similar operational support activities at Ft. Detrick, ADTECH found that utility and craft services similar to those operating as dedicated laboratory engineering support units at Plum Island are served from functional craft shops located outside the containment area on a work order and task basis. In the Ft. Detrick comparison, facilities involving 50 separate laboratory buildings totalling about 756,000 sq. ft. (approximately three times the size of Plum Island Laboratories) and containing the same type of air handling and research equipment were supported by a full service contract. The biological security requirements were the equal or higher and the age of the facilities approximately the same. The prime utility plants were operated by another agency under a mutual support agreement.

ADTECH observed that the physical plant is different in the example. Shop areas are available in Plum Island laboratory facilities and not at Ft. Detrick. However, the work load balance between various shops at Plum Island and the level of in-house repair and maintenance conducted versus potential contract project efforts could not thoroughly be examined in the time frame. An operational efficiency study to determine the proper balance of in-house repair and maintenance projects or contract efforts and the level of dedicated support within the laboratory facilities is needed. The notion that small projects, special equipment repair, and preventive maintenance cannot be provided from outside shops by contract does not hold up in view of the fact that some outside support is provided now at Plum Island and is usually accomplished that way at other locations where similar security situations exist.

## 8.2 Considerations for Contracting Engineering and Plant Management Functions

In considering contracting of selected engineering functions without others, some unnecessary adverse operational conditions may develop. Management should



be concerned, for example, if a service contractor is responsible for all buildings and grounds maintenance and support shop operations, he may find himself in a very untendable situation with respect to performance satisfaction. The contract activities would be subordinate to a government operated work management system which dictates not only priorities, but schedule. On the other end of the spectrum, the contract supports in-house operations which functionally overlap (electrical, plumbers, etc.) and operationally does not provide clear lines of responsibility (utility distribution system repairs, etc.)

In other similar situations where the contract arrangement has been made, ADTECH has observed that optimum efficiency was not achieved by either the residual government work force or the contractor. Utilization of capital equipment, facilities and personnel was not optimum in most areas when considered together. In constructing the various options available in the functional areas, ADTECH has considered various factors that will minimize problems and eliminate unnecessary overlap and redundancy.

### 8.3 Operational Efficiency Study Needs for Warehousing and Motor Pool

- Warehousing

ADTECH personnel briefly reviewed and observed the operational procedures used in the technical warehousing activities. This functional area is one that can clearly be performed by contract. However, other savings and operational efficiencies may be possible. It was observed that stocks and materiel are scattered throughout the various facilities; in the laboratories (maintenance shop stock and general supplies), in the general support shops (end items and shop stock); in the many warehouses (large quantities of relatively high value items and excess equipment). The stock accounting records are simplistic at best. However, time did not permit complete examination in this area except to observe that the installation of more efficient automated accounting equipment and stock control procedures could result in substantial savings. Under the contract, the modernization of accounting and control procedures should be expected without an unreasonable increase in the cost of operations. The use of the new warehouse facility currently under construction should facilitate management improvements in this area.





- Motor Pool Maintenance Operations

Currently, vehicle and equipment maintenance is contracted to a local firm. The contract itself permits a three man-year level of efforts and is administered by a full-time government employee. A review of vehicle and equipment management procedures and maintenance operations is in order.

ADTECH observed that there is some degree of satisfaction with the current arrangement even though there is some question concerning the annual contract costs. Under commercial/industrial review procedures contracts administration costs (COR wages) are balanced on the contract side of the formula. The current arrangement would likely favor a government operation since there is a full time technical representative involved in this case. ADTECH also observed a need for an operational efficiency study in this area since vehicles on the mainland are not maintained under the contract and parts supply; maintenance schedules and general record keeping may not be at the level prescribed by the Department of Agriculture. Consideration should be given to including all vehicle maintenance in a larger option package where overhead support and contract administrative costs could be reduced.

#### 8.4 Biological Safety

ADTECH observed that many aspects of the biological safety and security operations are closely related to normal security and personnel control activities. There are several exceptions where safety technicians perform support services (move and control contaminated material) in addition to technical inspections of possible violations and gaps in the system. Incidental to discoveries concerning facilities support at the Ft. Detrick biological laboratories, ADTECH learned that biological safety and ordinary guard service are performed exceeding well by contract. The overlap of responsibilities in this area tends to support the eventual combination of security activities under an independent security agent or multi service contractor.





## 9.0 COMMERCIAL/INDUSTRIAL/C/I REVIEW PACKAGE OPTIONS

In this section several option packages for programming C/I reviews are provided. The individual functional groups are not entirely mutually exclusive of the others since some are not recommended unless advertised and reviewed in combination with at least one other package. Each option package has been developed to minimize operational impacts at various conversion levels and to achieve efficiency through economies of scale in similar or mutually supporting activities.

### 9.1 OPTION PACKAGE ONE - SECURITY, PROTECTION, SUPPLY AND SERVICE GROUP

#### 9.1.1 General

The five separate functional activities grouped into this C/I review package represent the minimum grouping of type services which ADTECH feels will attract a substantial number of multifunctional general service contractors. The total number of positions involved will permit potential contractors to establish a responsible project office to best serve the long term interests of Plum Island and contract employees. While each of the activities can be advertized as separate bid items to facilitate considerations of individual and specialty companies, it could result in many separate contracts and operating conflicts. While this package has several disadvantages shown below, it does include all major general support C/I activities which are highly contractable and have the least risk or direct impact on daily laboratory research operations.

#### 9.1.2 Package Activities

#### Authorized Positions

● Guard Services	11
● Fire Protection and Prevention	6
● Technical Warehousing, Supply Receiving and Transportation	13
● Building and Grounds	21
● Motor Pool Vehicle and Equipment Maintenance	1
	<hr/>
TOTAL————	52



### 9.1.3 Summary Comparative Advantages/Disadvantages

#### Advantage

- o Will Attract responsible contract management and employees
- o Minimizes mission impact potential on employees
- o Converts reasonable number of activities/expenditures to private sector
- o Groups larger support general functions into single service contract
- o Involves minimum number of highly skilled craftman

#### Disadvantages

- o Minimum size to achieve economy and some savings
- o Eliminates few professional grade level employees
- o Has lowest potential total government savings
- o Involves potential engineer coordination and performance problems

### 9.1.4 Package Impact

●	<u>Potential Spaces Reduced</u>	52
	Less: contract administration	-3
	Net Impact	<u>49</u>
●	<u>Actual Staffing</u>	48
	Less: estimated - attrition/placement	-6
	:Retirements	-21
	Net Impact	<u>21</u>
●	<u>Costs</u>	
	Total personnel costs	\$1,083,376
	Minimum projected savings	\$108,338



### 9.1.5 Contract Administration and Realignment

In this option no major changes in the basic organizational structure will be necessary except to drop the six activities from the government organizational structure.

A single Contracting Officers Representative (COR) should be appointed with two qualified technical representatives. One should be responsible for the building and grounds, motor pool maintenance, warehousing, receiving and transportation contract activities. The other would cover guard and fire protection services.

It is ADTECH's position that only two additional spaces are required to perform the contract administration responsibilities. One at a GS level as COR and one in the safety officer. The current motor pool vehicle position would be expanded to include added responsibilities.

## 9.2 OPTION PACKAGE TWO - UTILITIES SYSTEM OPERATIONS AND MAINTENANCE

### 9.2.1 General

This C/I review package is designated as a high priority review group because it can stand alone in a separate review: be part of a total engineering and plant management package, or become a natural supplement to option package one. It is highly desirable to have the utilities operations and maintenance function in the same contract that supports building and grounds activities since both have roles to play in the maintenance and repair of outside utility distribution systems. Both groups operate normally outside of contaminated laboratories even though they each have responsibility for support to laboratory engineering requirements.

As discussed earlier, the subfunctions of the utilities section involve monitoring of airhandling equipment via remote control in the central steam plant. In the future, it will likely involve monitoring of energy conservation and other controls as well. The fact that it is a twenty-four hour operation and that the operation of the laboratories depends on availability of steam and electric power is not acceptable justification for avoiding a C/I review. This is especially true when



one recognizes that utility plant operations are frequently contracted. The agency should expect that a responsible full service contractor performing these functions will always provide high quality, fully certified operators and technicians for each shift.

### 9.2.2 Package Activities

This package involves the entire utility section as it is now organized including the main decontamination plant operation which can be separate or included but is recommended as part of the package. ADTECH believes that the decontamination plant operation can also be considered for review in another package containing the laboratory support operations since it also involves full-time operators in a contaminated area. However, it is more directly involved with the utility plant and sewage system than the laboratory activity.

#### Authorized Positions

Total 22

#### C/I Sub-functions involved:

- Power plant operations and maintenance
- Electrical distribution system maintenance
- Main boiler plant operations and maintenance
- Steam distribution system maintenance
- Water plant and distribution system operations and maintenance
- Sewage plant and system operations and maintenance
- Fuel storage and distribution system operations and maintenance
- Decontamination plant operations

### 9.2.3 Summary of Comparative Advantages/Disadvantages

#### Advantages

- Keeps main utility group in tact
- When combined with package one, provides optimum level for management and economic of scale savings





- Places responsibility for all external utility systems maintenance under single manager if converted to contract contractor

#### Disadvantages

- Involves only wage category employees. No professional levels involved
- Is a major section of the engineering and plant structure—reduces workforce and supervisory responsibilities
- Involves possible loss of trained technicians and institutional knowledge of employees

#### 9.2.4 Package Impact

●	<u>Potential Spaces Reduced</u>	22
	Less: contract administration	-2
	Net Impact	<u>20</u>
●	<u>Actual Staffing</u>	22
	Less: estimated-attrition/placement	-4
	:Retirements	<u>-11</u>
	Net Impact	7
●	<u>Costs</u>	
	Total personnel cost	\$575,210
	Minimum projected savings	\$52,521

#### 9.2.5 Contract Administration and Realignments

This option involves no major changes or structure except to drop the utilities section from the Government organizational structure.



The Contracting Officers Representative (COR) can be the same as that for Option one when combined. However, there will be a need to have a minimum of two highly qualified technical representatives to administer the utilities portion of the contract. One should be primarily focused on electrical systems, power plant and monitoring systems, for air handling equipment. The other for steam, water, sewage, decontamination, and fuel storage operations and maintenance.

### 9.3.0 OPTION PACKAGE THREE - ANIMAL SUPPLY AND GENERAL SUPPORT

#### 9.3.1 General

The package involves a relatively small group of independent activities which should not be contracted separately. As commercial/industrial activities these functional areas are ideally suited as a group to be added to option package one on the assumption that a single multi-service contractor with a broad employment and service capability is selected. This option package should not stand alone since the hiring of one or two individuals in each general support area is just not a workable contract effort. The large animal supply operation can be contracted separately but, for the same reasons, it would be best to tie this function, however specialized, to a larger contract as long as the operation is conducted on the island in the limited access area.

#### 9.3.2 Package Activities

#### Authorized Positions

• Animal Supply (large animal)	5
• General Support Sub Group	
o Food Service	2
o Outside Laundry and Reproduction Service	1
o Janitorial Support	1
	<hr/>
	TOTAL 9

#### 9.3.3 Summary Comparative Advantages/Disadvantages

##### Advantages

- o Groups small functions not otherwise efficiently contracted into a single package



- No additional supervision needed when added to package one
- General support functions are related to package one activities

#### Disadvantages

- Animal supply is closely regulated and involves a high degree of professional control
- Will require separate technical supervision due to research nature of animal supply function

#### 9.3.4 Package Impact

#### Authorized Positions

● <u>Potential Spaces Reduced</u>	9
Less: contract administration	0
Net Impact	<u>9</u>
● <u>Actual Staffing</u>	9
Less: estimated attrition/placement	-2
Retirement	<u>-4</u>
Net Impact	<u>3</u>
● <u>Costs</u>	
Total personnel costs	\$185,670
Minimum projected savings	\$18,567

#### 9.3.5 Contract Administration and Realignment

To administer this package the existing Chief of Office Services and the Chief of Animal Supply or his assistant could serve as technical representatives to the COR as additional duties.



#### 9.4.0 OPTION PACKAGE FOUR - ADMINISTRATIVE SUPPORT

##### 9.4.1 General

Similar to package three, this option contains a number of small administrative functions which mainly serve the director's office and management services at Plum Island. This group should not be considered separately but should be combined with option one or any other combination of options in which contract management and reasonable employment for a large group is provided by a single contractor.

##### 9.4.2 Package Activities

##### Authorized Positions

●	Word Processing Center	5
●	ADP Operations (programmed)	-
●	Records and files maintenance	2
●	Communications switchboard	1
●	Currier service (on island)	1
		<hr/>
		TOTAL— 9

##### 9.4.3 Summary of Comparative Advantages and Disadvantages

###### Advantages

- Groups support type administrative services into a single package
- Provides opportunity to obtain contract support and backup/fill capability for administrative positions

###### Disadvantages

- Supporting management functions involving internal operations and potentially sensitive matters.
- Impacts mainly women employees
- Should only be contracted as part of a larger full service contract





#### 9.4.4 Package Impact

● <u>Potential Spaces Reduced</u>	9
Less: contract administration	<u>0</u>
Net Impact	9
● <u>Actual Staffing</u>	9
Less estimated attrition/placement	0
Retirement	<u>2</u>
Net Impact	7
● <u>Cost</u>	
Total personnel costs	\$117,980
Minimum projected savings	\$11,798

#### 9.4.5 Contract Administration and Realignment

The positions represented in this package are mainly administrative. When combined with option packages one and three the requirement for a Chief of Office Services is reduced to a minimum and perhaps, could be eliminated. On the other hand, the need for a full-time highly qualified Contracting Officer Representative becomes more acute. It is likely that the Procurement and Office Services units would be combined to provide an appropriate contract administrative structure.

#### 9.5 OPTION FIVE - MARINE OPERATIONS AND MAINTENANCE

##### 9.5.1 General

This commercial/industrial activity is a highly contractable function which is usually provided by private companies throughout the coastal waters of the United States. This option package can be reviewed separately or advertized as a part of a larger group of packages.



While all activities at Plum Island are absolutely dependent on reliable and dedicated ferry service, there is no apparent reason why this activity should be eliminated from eventually being scheduled for a C/I review. Backup ferry service is available at New London, Connecticut, and has been available during periods of emergency in the past.

Since there is already a large investment in government-owned boats and facilities, it would not be appropriate to review this function without a complete analysis of the future capital expenditures and residual values should the conversion of the total marine operation be considered. In the interim, only a review to consider contracting of personnel services using existing boats would be appropriate for the C/I Inventory schedule.

#### 9.5.2 Package Activities

#### Authorized Positions

- Boat Operations and Maintenance 11

#### 9.5.3 Summary of Comparative Advantages/Disadvantages

##### Advantages

- Possible reduction in operating costs.
- Could be included as part of larger full service contract involving all transportation activities and management.

##### Disadvantages

- Must be operational or on standby at all times (fully dedicated not necessarily this effective)

#### 9.5.4 Package Impact

#### Authorized Positions

- Potential Spaces Reduced 11

Less: contract administration	-1
Net Impact	<u>10</u>



● <u>Actual Staffing</u>	9
Less: estimated attrition/placement	-2
:Retirement	-2
Net Impact	<u>5</u>
● <u>Cost</u>	
Total personnel costs	\$254,061
Minimum projected savings	\$25,406

#### 9.5.5 Contract Administration and Realignment

If this package is considered, there will be a need for a full-time technical representative who could also manage transportation and receiving activities. This requirement could exist even if the marine operations and maintenance activity is administered as a separate contract.

#### 9.6.0 OPTION PACKAGE SIX - ENGINEERING AND LABORATORY SUPPORT OPERATIONS

##### 9.6.1 General

This package should only be used in conjunction with options one and two. In effect, it is a final requirement that combines the entire Engineering and Plant Management activity under a single contract. The primary operational activity in this package is the laboratory operations support functions. These highly specialized utility type shop and support functions are commercial/industrial activities. As addressed earlier, they are supported by both the utilities and building and ground sections and at other similar locations has been successfully contracted. When management elects to review this functional activity, it should also include the remaining engineering, planning and management functions for facilities engineering. Since all operating functions would be performed by contract, these activities which



manage daily operations also should be considered for conversion in the same option. A competent contract administrative capability would be required to support his option.

When "inside" engineering support is considered, other support functions which operate within contained areas also should be considered. Since the contractor would be operating inside and have a security oriented workforce already established there should be no problems in adding the other smaller support services.

ADTECH finds no substantial reason to separate the non-engineering support into a separate package solely on the basis of security. The point of view that laundry and other general support people do not move throughout the laboratory as does the engineering personnel is a consideration. The two areas could be separated into two option packages if management desired.

#### 4.6.2 Package Activities

#### Authorized Positions

- |   |    |
|---|----|
| ● Engineering, planning/construction management                 | 11 |
| ● Laboratory Operations, engineering support<br>(Bldg. 101-257) | 48 |
| ● Laboratory laundry and glassware services                     | 14 |

TOTAL	74
-------	----

#### 9.6.3 Summary Comparative Advantages/Disadvantages

##### Advantages

- o Possible large reduction in annual operating costs





- o Will provide for review of all "total" remaining support services not directly mission related when performed in conjunction with first five options
- o Places all remaining engineering and plant management activities under a single project office—thus providing greater opportunity for improvement and operational efficiency.

#### Disadvantages

- o Has large adverse impact on current employees
- o Requires a relatively long period to accomplish complete conversion if combined with option one and two at the same time.

#### 9.6.4 Package Impact

#### Authorized Positions

o	<u>Potential Spaces Reduced</u>	74
	Less: contract administration	-3
	Net Impact	<u>71</u>
o	<u>Actual Staffing</u>	70
	Less: estimated attrition/placement	-6
	Retirement	-8
	Net Impact	<u>56</u>
o	<u>Costs</u>	
	Total personnel costs	\$1,670,094
	Minimum Projected savings	\$167,009



#### 9.6.5 Contract Administration and Realignments

These options will involve an addition of a full-time dedicated Contracting Officer Representative (COR) for engineering who would require at least one full-time planning and management technician, plus two other utility-oriented technicians to assist in administration contract operation in each of the laboratories. Technicians needed for options one and two are also a requirement.

#### 9.7.0 OPTION PACKAGE SEVEN - LABORATORY ANIMAL CARE, BIOLOGICAL SAFETY AND TECHNICAL ADMINISTRATION SUPPORT

##### 9.7.1 General

This package contains five separate functional areas which are directly related to mission research activities. While they are technically commercial/industrial type functions, they are interactive with research and sometimes considered technical activities essential to that research. As such, none are recommended for C/I review without detailed assessment of the impact on the research mission.

- o Biological Safety

These activities are contracted at other similar laboratories and in such cases are just as closely involved with outside guard services as they are with research safety inside the laboratories.

- o Biological Safety

Animal care support in contaminated lab areas as discussed earlier is very technical or clinical in nature. The personnel involved perform duties closely related to laboratory technicians. However, in this final analyses, this function could be contracted. The number of different laboratory elements and supervisors complicate the management and control situation.



- Technical Library

This activity is closely related to the basic research effort since it is responsible for maintenance of all research references and research reports completed at Plum Island. The activity, while contractable, should not be contracted without further study.

- Visual Information (Photography)

Also, mission related, the function is essential to effective documentation and publication of research results. Since much of the actual work is performed in the laboratory, this function should not be considered for C/I until other "inside" more general laboratory support functions have been considered.

- Dispensary

While this activity is a commercial/industrial type function, it is also directly involved with biological security and overall health matters related to research. This function may be retained in house on the basis of mission and operational necessity.

The main issues that separate these functions from the others are that: (1) C/I type activities are performed under special containment conditions and are research related, (2) the need exists for direct control over support personnel to ensure safety, health, and quality of direct support. An independent contractor could provide just as reliable a service as is operated today if his personnel were under the direct supervision of management.

#### 9.7.2 Package Activities

#### Authorized Positions

● Laboratory animal care (all labs)	19
● Technical Library	2
● Biological safety activities	11



o	Visual information (photography)	2
o	Dispensary	1
TOTAL——		<u>35</u>

### 9.7.3 Contract and Personnel Considerations

Since the conversion of these functional areas is highly controversial, it is recommended that they be placed last of the C/I review schedule if management is unable to develop an adequate justification to have the areas exempted from the review process. Further study of the safety and other support operations at Ft. Detrick is recommended before a justification for exception is developed.





PART III  
NATIONAL ANIMAL DISEASE CENTER (NADC)

10.0 GENERAL BACKGROUND

The National Animal Disease Center (NADC) in Ames, Iowa, is the U.S. Department of Agriculture's (USDA) research center for the study of livestock diseases that exist in the United States. The central mission of NADC is to conduct basic and applied research on infectious and noninfectious diseases of domestic animals (i.e. livestock, poultry, etc.). NADC is designed so that over twenty (20) animal diseases of national concern can be researched simultaneously.

NADC is a complex of thirty-three (33) fire-resistant buildings (as depicted in Figure 3). Three (3) research buildings comprise the heart of NADC. The main research laboratory contains thirty-two (32) separate research units for the study of small caged animals. The larger farm animals are studied in two (2) animal isolation laboratory buildings. All other buildings at NADC either support or reinforce the research mission. The facilities at NADC are modern and flexible. In our judgement, the physical plant appears to be in superior operating condition when compared to other federal facilities of the same age and complexity which we have observed.

10.1 NADC Organization and Special Considerations.

NADC employs approximately 279 permanent full-time employees who are distributed across various organizational functions (see Figure 4). As such, the number of people employed by NADC does impact employment within the area of Ames, Iowa.

Due to biological security requirements, control of people and material at NADC and between facilities is a major factor in evaluating work force efficiency and related costs of doing business. In reviewing the NADC support service activities which fall within the context of Commercial/Industrial type activities, as prescribed by OMB Circular A-76, the operational and safety considerations are a major factor. Since personnel conduct research on contaminated and non-contaminated animals to study the causes and effects of diseases, it is imperative that:



LEGEND	
AREA I	
150	LIFT STATION
108 149	FIELD BUILDING
AREA II	
2	ADMINISTRATION BUILDING
3	MAIN LABORATORY
4	ANIMAL ISOLATION LABORATORY
5	COOLING TOWER
152	CHANGE HOUSE
154	POWER PLANT
155	WASTE TREATMENT PLANT
156	POST MORTEM BUILDING
157	VEHICLE DECONTAMINATION BUILDING
AREA III	
10	SHOPS
11	WAREHOUSE
12	CHEMICAL STORAGE
138	SEMIN PROCESSING LAB
139	BULL BARN
AREA IV	
13 16	HAY & FEED STORAGE
230 233	SHEEP BARNS
234	HORSE BARN
AREA V VI VII	
201 220	ANIMAL LOADING SHEDS

□	EXISTING BUILDING
■	PROPOSED AND APPROVED BUILDING
▨	PROPOSED BUILDING

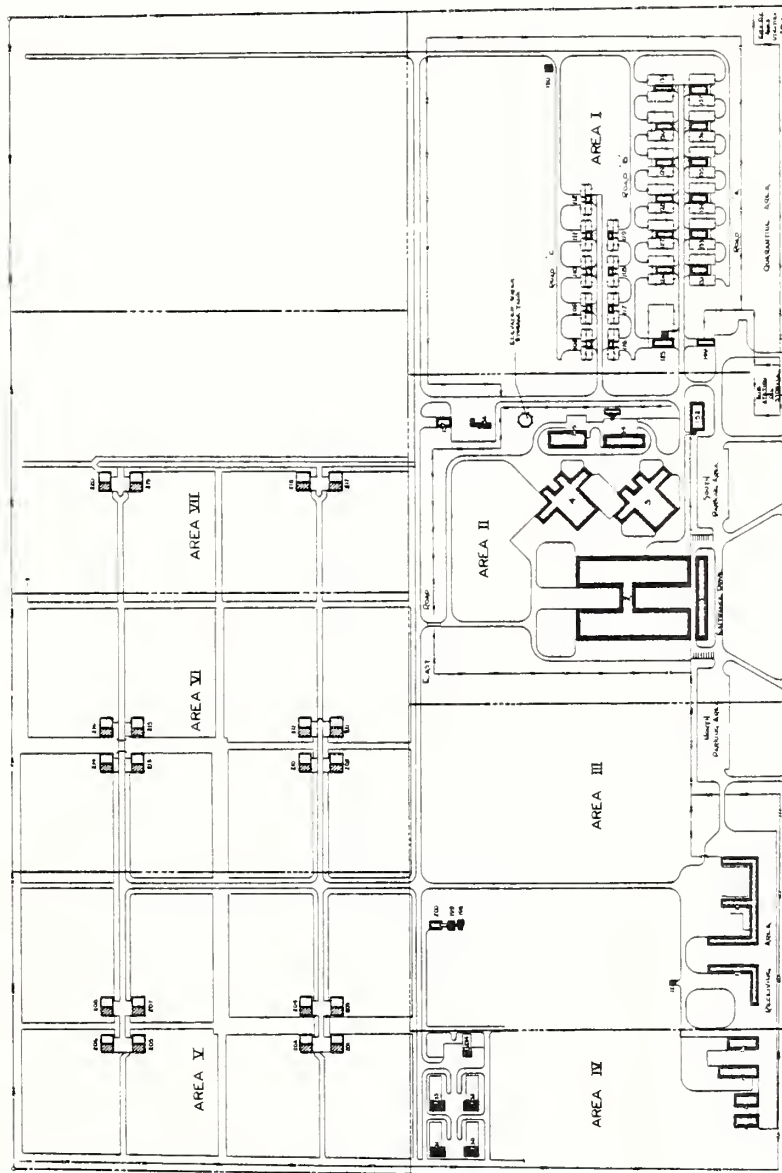


FIGURE 3  
NADC FACILITIES AND PLANT LAYOUT



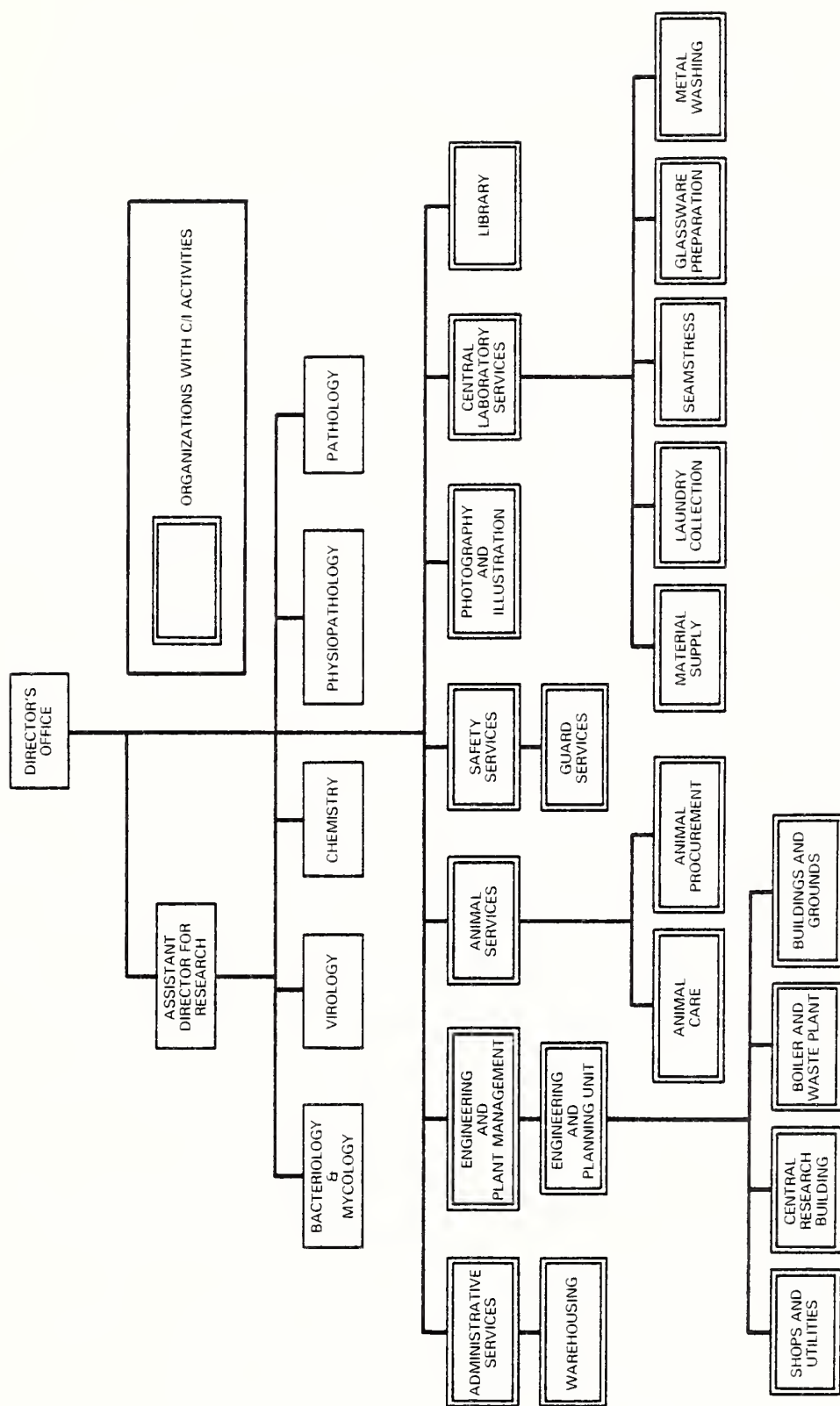


FIGURE 4  
NADC ORGANIZATIONAL STRUCTURE



- Diseases are not spread from contaminated to clean animals by humans
- Research workers do not contract diseases to which man is susceptible.
- Disease agents do not escape from the laboratory to the surrounding community.
- Cross-contamination does not occur between different areas in the laboratory.

In order to prevent the spread of diseases, NADC has established safety requirements to protect research workers, the community, and research animals from the accidental spread of disease.

Table V contains a list of the number of research and support personnel assigned to each major work function at NADC. There are approximately 279 permanent full-time and 80 temporary employees authorized at NADC. Of the permanent employees, approximately 76 employees or 22% are direct line/scientific personnel and approximately 283 employees or 78% are overhead services/support personnel.

Direct line/scientific personnel are responsible for conducting research on infectious and noninfectious diseases of animals. By their nature, research services performed by direct line/scientific personnel are intrinsic to the essential mission of the Center, and as such, can be exempt from the Commercial or Industrial (C/I) Review Process, based upon approval of exemption justification by the proper authorities. Overhead services personnel provide services that support the mission of the direct line/scientific personnel. These services do not require direct scientific supervisory control to be exercised in order that NADC's research mission be achieved. This is in contrast to support services which directly support scientific research and where the absence of direct supervisory control might impede or endanger the conduct of research. In Section 11, ADTECH has identified those support services which are subject to the provisions of OMB Circular A-76 at NADC.

## 10.2 ADTECH Focus and Special Interests

In conducting this review, ADTECH personnel visited each activity involving support services to observe and discuss the scope and methods of operation. The analysis gave special consideration to the role of support services in relation to research activities and to biological safety considerations. ADTECH has also





ORGANIZATION	PFT		PPT		OTHER <sup>1</sup>	
	GS	WG	GS	WG	GS	WG
Office of the Director	2	2				
Visual Information Services	1	2				
Library	1	1				
Management Services	2	18		6		3
Bacteriology and Mycology	24	12		3		3
Virology	14	11		4		3
Pathology	7	8		2		2
Chemistry	9	4		1		1
Physiopathology	7	7		1		4
Engineering & Plant Management	1	68		3		9
Safety	3	6				1
Animal Supply	3	26		1		13
Central Laboratory Services	2	24		5		5
<b>TOTALS</b>	<b>76</b>	<b>189</b>		<b>26</b>		<b>44</b>

<sup>1</sup>Includes temporary employment and special programs.

TABLE V  
STAFFING – NATIONAL ANIMAL DISEASE CENTER



compared organizational features and support activities procedures at NADC with those at Plum Island Animal Disease Center (PIADC) and more specifically to those used to support laboratory research at the Department of Health, Education, and Welfare's Biological Research Laboratory at Fort Detrick, Frederick, Maryland, where the same or higher degree of biological safety is required.

### 10.3 Operational Efficiency Improvement Considerations

ADTECH has examined the individual support functions contained in Section 11, below, to determine if any operational efficiency improvements can be made. Implicit in any C/I review is the theory that the current operations are operating at or near maximum efficiency and optimum operating costs. As a result, ADTECH has observed limited opportunities to further reduce the existing in-house level of effort and retain existing operational efficiency levels.

ADTECH was not expected to perform an indepth analysis of each support function's operational efficiency, within the time frame and scope of the Phase I study effort. An operational efficiency study of select support activities would more than likely produce improvements in work level efficiency and administrative procedures. However, it is likely that any operational and administrative procedure efficiencies would be offset by the incremental level of manpower required to implement new procedures.

### 11.0 IDENTIFICATION OF C/I ACTIVITIES AT NADC

The primary purpose of this study is to identify alternative contracting-out strategies for select C/I activities during a three (3) year process commencing in FY 80, which take into consideration various operational and organizational realignment impacts on operational efficiency. OMB Circular A-76 specifically identifies the C/I type activities subject to review during the three (3) year review cycle to determine the most cost-effective source of workload performance. All C/I activities must be reviewed during this cycle and either be subject to a cost comparison conducted in accordance with the guidelines of the firm bid/offer procedure or be exempt from comparison by complying with restrictive criteria contained in the circular with respect to in-house retention of a C/I activity. The Department of Agriculture (USDA) has implemented this program through guidance



contained in USDA Administrative Regulations. In turn, the Science and Education Administration (SEA) has issued guidance pertaining to the development of a C/I inventory which required identification of the C/I activities present at each SEA site, provided guidance for the justification of C/I functions in-house or by contract, and the scheduled time frame for review of support service functions.

ADTECH's investigation shows that a C/I inventory developed in accordance with guidelines contained in the circular, has not been constructed for NADC, to date. Therefore, one of the first phases in this study is to clearly identify the types of service which in our judgement can be classified as C/I activities (based upon scope of services provided).

### 11.1 Specific C/I Activities

In the following sub-sections ADTECH has identified the support service functions and subfunctions that are considered to be C/I activities. The descriptions of the services provided do not address in detail, the special operating conditions unique to each C/I activity. It is ADTECH's understanding that all of these functions will be included in the C/I Inventory and that they will be scheduled for review, unless specifically exempted by the appropriate authorities.

#### 11.1.1 Library Services

The library services function at NADC currently consists of two (2) people who work from the hours of 8:00 A.M. to 4:30 P.M., Monday through Friday, excluding holidays. The library services function provides, at a minimum, the following services:

- Purchasing of books and journals
- Cataloging books
- Shelving books
- On-line search capability for various subject matter
- Maintain records of books/journals purchased and books that are in circulation.



Library services are available to employees of NADC and APHIS (tenant activity of NADC). The library services function has a contract to handle the ordering of subscriptions for over 300 journals.

#### 11.1.2Scientific/Technical Photography and Illustration Services

These service are provided for NADC and APHIS between the hours of 8:00 A.M. to 4:30 P.M., Monday through Friday, excluding holidays. Three (3) people currently provide these services. Often, the photographer and illustrator are required to enter the research laboratories to perform their work, and as such, are required to comply with biological safety requirements. At a minimum, the following photography and illustration services are provided for NADC and APHIS:

- Photography of animals, tissues, or organs
- Microscopic photography
- Film processing
- Developing prints
- Maintaining inventories
- Anatomical illustrations
- Technical illustrations
- Graphic aids
- Collography
- Motion picture and video photography
- Develop audio-visual programs.

#### 11.1.3Laboratory Services

There are five (5) subfunctions within the laboratory services function that ADTECH considers C/I activities and they are as follows: material supply, laundry collection, seamstress, glassware preparation, and metal washing. These services are provided by eleven (11) people who work between the hours of 8:00 A.M. to 4:30 P.M, Monday through Friday, excluding holidays. These services are provided at both the NADC and the APHIS laboratories located within NADC. At a minimum, these subfunctions provide the following types of services:





- Order glassware, chemicals, clothing, etc
- Maintain inventory of supplies
- Collect laundry from modules in Buildings 1 and 2 and from collection points in Building 3 and 4, and deliver laundry to contractor collection point
- Deliver clean laundry from contractor collection point to original collection points
- Repair clothing
- Clean and prepare glassware
- Collect used glassware generated by the research laboratories.

People working in these subfunctions are not required to enter the research laboratories in order to perform these services. However, if glassware is not sterilized prior to leaving the research laboratories there is a possibility that the metalwashers would be exposed to various diseases. Currently, the laundry operation is contracted out and the in-house sub-function is responsible for collecting laundry and delivering it to the contractor collection point.

#### 11.1.4 Warehousing Services

Warehousing services are provided for NADC and APHIS between the hours of 8:00 A.M. to 4:30 P.M., Monday through Friday, excluding holidays. Eight (8) people currently provide these services. At a minimum, the following warehousing services are provided to NADC and APHIS:

- Collection and delivery of feed
- Delivery of supplies and equipment
- Maintain inventory on feed, supplies, and equipment used by all activities at NADC and APHIS
- Order feed, supplies, and equipment
- Inspect feed, supplies and equipment.

#### 11.1.5 Guard Services

Guard services are provided at NADC during the hours of 4:00.P.M. to 8:00 A.M. Monday through Friday, and on a twenty-four (24) hour basis on Saturdays,



Sundays and holidays. At a minimum, the following services are provided to NADC:

- Authorize entry into research laboratories during off-hours (4:00 P.M. to 8:00 A.M.)
- Open and secure research laboratories
- Make security checks
- Receive specimens during off-hours.

#### 11.1.6 Animal Supply Services

There are two (2) subfunctions within the animal supply services function that ADTECH considers C/I activities and they are as follows: supply and procurement services, and production and services. These services are provided by twenty-two (22) people who work between the hours of 8:00 A.M. to 4:30 P.M., Monday through Friday, excluding holidays. These services are provided to NADC, APHIS, and NVSL Lab (Lincoln East). At a minimum, these subfunctions provide the following types of services:

- Purchase animals
- Breed Animals
- Feed animals
- Take blood and tissue samples
- Maintain records of the number of animals born and deceased
- Alert veterinarians of diseases in animals
- Maintain inventory on number of animals purchased
- Transport animals to incinerators
- Collect, sterilize and deliver laundry to Laboratory Services
- Spread manure
- Collect and dispose waste in incinerators, city dump, or Ames waste treatment plant.

Animal caretaking functions do not require that any services be performed inside the research laboratories. However, animal caretakers must adhere to a set of safety requirements to perform a majority of their services. Animal supply services contracts for a variety of animal species that either are not bred in-house or as a supplement to the animals that are currently bred by the in-house workforce.



### 11.1.7 Engineer and Plant Management Services

There are five (5) major working units within engineering and plant management services that ADTECH considers as C/I activities and within these working units are several subfunctions that ADTECH considers as C/I activities. The major working units are as follows: engineering and planning unit, boiler plant and waste treatment unit, central shops and utilities systems units, buildings and grounds unit, and the central research buildings unit. These services are provided by seventy-six (76) people who work between the hours of 8:00 A.M. to 4:30 P.M., Monday through Friday, excluding holidays. The boiler plant operates on a twenty-four (24) hour basis, seven (7) days a week and janitors work from 4:00 P.M. to 12:30 A.M., Monday through Friday. Many of the services performed by the electricians, plumbers, and heating/air-conditioning mechanics within the central research buildings unit and the central shops and utilities systems unit require that they enter the research laboratories and contaminated areas. As such, they are required to adhere to biological safety requirements. In addition, boiler plant and waste treatment plant mechanics are required to perform maintenance on malfunctioning components within the boiler/waste treatment plants and within heating plant systems located in the research facilities, that contain contaminated particles or are located in contaminated areas. They also are required to adhere to biological safety requirements. At a minimum, the engineering working units perform the following services:

#### Central Shops and Utilities Systems

- Maintenance on high-voltage systems
- Provide electrical support to other engineering units.
- Operate and maintain air-conditioning, heating, and air balance systems
- Machine shop capability
- Maintenance on motor vehicles, motorized equipment, motors, generators, et.
- Interior and exterior painting
- Mason shop capability
- Carpenter shop capability
- Pipefitter shop capability.



## Buildings and Grounds

- Operate and maintain air-conditioning, heating systems, and air balance systems
- Excavation capability
- Roads and grounds resurfacing
- Snow removal
- Refuse collection and disposal
- Electrical support capability
- Plumbing capability
- Grounds maintenance.

## Boiler and Waste Treatment Plant

- Operate and maintain boiler plant
- Operate and maintain waste treatment plant
- Receive and distribute fuel oil
- Heating and air-conditioning mechanic capability during off-duty work hours.

## Central Research Building

- Janitorial services
- Electrical support capability
- Operate and maintain air-conditioning, heating and air balance systems
- Operate and maintain potable water, industrial water, and air-bound agent control systems
- Operate and maintain incinerators

## Engineering and Planning

- Develop work schedules
- Plan maintenance and construction projects
- Inspect contract work
- Estimate cost of projects.





## 12.0 COMMERCIAL/INDUSTRIAL REVIEW PROGRAM ISSUES

In the previous section, ADTECH identified those functions performed at NADC that in its judgement fit the definition of a commercial or industrial activity under the current rules. The burden of justifying exceptions for excluding functions identified from the firm bid/offer review process lies with the Department of Agriculture management structure. ADTECH understands the positions previously established in this regard and is sensitive to impacts and preferences established by management. A balanced approach that will enable management to construct an orderly and manageable C/I review program is necessary for successful implementation from the outset.

Current policy does not dictate that all functions be reviewed in a single year even if a total support package is feasible or justified from an economic and mission point of view. The door is open to obtain exceptions when specific criteria are met. It is ADTECH's opinion that a major portion, if not all, of the support service functions identified in Section 11, above can be successfully identified and can be successfully contracted and operated in conjunction with government research activities at NADC without a substantial adverse effect on the local economy or the employment situation of most current employees. Of course, this is based on the assumption that operational and security considerations are satisfied and that a competent and responsible contract employer can be obtained through the procurement process.

One of the most critical considerations that impacts the operational efficiency of the in-house workforce at NADC are the biological safety requirements. To a large degree, options that call for the provision of general support services to the laboratories from work units located outside the laboratory areas, can restrict operational efficiency when the level of effort dictates a need for a dedicated workforce or a continuous commitment for a particular support service. Conversely, when support to the laboratory is general in nature, on an intermittent or emergency basis, there is really no sound justification for prohibiting organizational realignments or performance by contract due to existence of special security procedures.



## 12.1 Engineering and Plant Management Activities

Of all the C/I type activities at NADC, the engineer and plant management organization and its operations are most constrained by biological safety requirements. This could in turn be used as justification for not contracting major elements of this functional area. However, in developing the C/I review option packages presented later in this report, ADTECH thoroughly considered these special operating conditions. In the course of our investigation, a number of key observations were made. While examining similar operational support activities at Ft Detrick, ADTECH found that engineering services similar to those operating as dedicated laboratory engineering support units at NADC are served from functional craft shops located outside the containment areas. In the Ft. Detrick comparison, facilities involving 50 separate laboratory buildings totalling about 756,00 sq. ft. and containing the same type of air handling and research equipment at those present at NADC were supported by full service contract.

In considering contracting of selected engineering functions without others, some unnecessary adverse operational conditions may develop. Management should be concerned, for example, if a service contractor is responsible for all buildings and grounds maintenance and support shop operations, he may find himself in a very untenable situation with respect to performance satisfaction. The contract activities are subordinate to a government-operated work management system which dictates not only priorities, but schedule. On the other end of the spectrum, the contract supports in-house operations which functionally overlap (electricians, plumbers, etc.) and operationally does not provide clear lines of responsibility (utility distribution system repairs, etc.).

## 12.2 Technical Photography/Illustration and Library Services

Technical photography/illustration services are constrained by biological safety requirements because workforce personnel must enter biologically contaminated areas in order to provide their services. Because of the biological safety requirements that must be observed, this function could be justified for retaining in-house. However, ADTECH found that these services are being provided by contract in laboratories that have biological/hazardous safety requirements that equal or exceed



those present at NADC. The photography/illustration services have been included in Package Four, but, since these services are an integral part of the scientific mission at NADC and that the institutional knowledge of the workforce cannot be readily transferred, ADTECH recommends that these services be given a low priority consideration for contracting-out.

ADTECH also recommends that library services be given a low priority consideration for contracting-out because library services are considered an integral part of the scientific mission at NADC. This recommendation is based on the fact that library services maintain current files of journals, books, periodicals, and reference material that pertain to all the specific medical studies that are conducted at NADC.

### 12.3 Food Services

Food services is a support activity that is subject to the provisions of OMB Circular A-76. However, food services are currently provided under a contract with the state of Iowa Blind Commission. The existing contractual conditions (hiring of disadvantaged employees, etc.) tend to justify continued contract terms on a sole source basis with the Blind Commission. Therefore, food services is exempt from the alternative option packages for contracting-out C/I activities.

### 13.0 C/I REVIEW PACKAGE OPTIONS

In this section, several option packages for programming C/I reviews are provided. The individual functional groups are not entirely mutually exclusive of the others since some are not recommended unless reviewed in combination with at least one (1) other package. Each option package has been developed to minimize operational impacts at various conversion levels and to achieve efficiency through economies of scale in similar or mutually supporting activities.





### 13.1 OPTION PACKAGE ONE - SECURITY, BUILDING AND GROUNDS, WAREHOUSING, JANITORIAL AND VEHICLE MAINTENANCE

#### 13.1.1 General

The five functional activities grouped into this C/I review package represent the minimum grouping of type services which ADTECH feels will attract a substantial number of multi-service general contractors and enable NADC to realize cost efficiencies in contracting-out. The total number of positions involved will permit potential contractors to establish a project office that could best serve the long-term interests of NADC. While each of the functional activities can be advertised as separate bid items to facilitate consideration of individual and specialty companies, a likely outcome from this approach would be that many separate contracts would be let, that operating conflicts between numerous contractors would impair operational efficiency, and the net value of cost efficiencies would not be as great as one separate contract. While this package has several disadvantages as shown below, it does include all major general support activities which are highly desirable for contracting-out and have the least risk or direct impact on daily laboratory research operations.

<u>13.1.2 Package Activities</u>	<u>Authorized Positions</u>
● Guard Services	4
● Buildings and Grounds	14
● Warehousing	9
● Janitorial	4
● Vehicle Maintenance	3
TOTAL—	<u>34</u>

#### 13.1.3 Summary Comparative Advantages/Disadvantages

##### Advantage

- Cost economies can be realized with one (1) large contract





- Attract responsible contract management and employers
- Minimize mission impact potential
- Convert reasonable number of activities/expenditures to private sector
- Involves minimum number of highly skilled craftsman.

#### Disadvantages

- Minimum size to achieve cost efficiencies
- Potential adverse impact on some employees
- Lowest potential total government savings
- Increases potential engineer coordination and performance problems

#### 13.1.4 Package Impact

<u>Potential Spaces Reduced</u>	34
Less: Contract administration	<u>-3</u>
Net Impact	31

<u>Actual Staffing</u>	30
Less: Estimated attrition/placement	-2
:Retirement	<u>-4</u>
Net Impact	24

<u>Costs</u>	
Total Personnel costs (\$)	\$714,584
Minimum projected savings(\$)	\$ 71,458

#### 13.1.5 Contract Administration and Realignments

This option will not require any basic changes to the organizational structure at NADC with the exception of dropping the five (5) functional activities from the organizational structure. In order to effectively administer the contract, a single Contracting Officer Representative (COR) should be appointed in conjunction with appointing two (2) qualified technical representatives to inspect contractor work and to support the COR in administration of the contract. Functional areas of responsibility for the technical representatives would be as follows: one represent-



ative would be responsible for administering and inspecting vehicle maintenance and warehousing services, and the other representative would be responsible for administering and inspecting building and grounds, security, and janitorial service.

### 13.2 OPTION PACKAGE TWO - BOILER AND WASTE PLANT AND OUTSIDE SHOPS AND UTILITIES

#### 13.2.1 General

This C/I service package includes operation and maintenance of the boiler and waste treatment plant and the provision of those support activities within the shops and utilities unit that do require workers to enter the research laboratories (i.e.- machine shop, metal shop, etc.) This C/I review package is designated as a high priority review group because it can stand alone in a separate review, be part of a total engineering and plant management package, or supplement Option Package One. It is highly desirable to include Boiler and Waste Plant and Outside Shops and Utilities Units in the same contract package that contain Buildings and Grounds since the services provides maintenance support to utility distribution systems located outside the central research units.

The boiler plant is operated twenty-four (24) hours per day, seven (7) days per week and the waste treatment plant is operated seven (7) days per week. However, this is not an acceptable justification for exemption from conducting a C/I review since many boiler and waste plant operations at federal sites, with mission areas as critical as NADC, are frequently contracted out. In addition, contractors are capable of responding to emergency breakdowns in equipment and correcting the breakdowns in the same time frame as is required for in-house (Government) employees.

13.2.2	<u>Package Activities</u>	<u>Authorized Positions</u>
●	Boiler Plant	15
●	Waste Plant	4
●	Outside Shops and Utilities	<u>18</u>
	TOTAL——	37



### 13.2.3 Summary Comparative Advantages/Disadvantages

#### Advantages

- Places responsibility for all external utility system maintenance under one (1) contractor
- When combined with Package One, provides optimum level for engineering and plant management contract activity
- Enables greater cost economies to be realized.

#### Disadvantages

- Involves only wage-grade employees
- Reduces workforce supervision roles
- Potential loss of trained technicians and institutional knowledge of employees when combined with Package one, of employees

### 13.2.4 Package Impact

●	<u>Potential Spaces Reduced</u>	37
	Less: Contract administration	-2
	Net Impact	<u>35</u>
●	<u>Actual Staffing</u>	34
	Less: Estimated attrition/placement	-2
	:Retirement	<u>-12</u>
	Net Impact	20
●	<u>Costs</u>	
	Total Personnel costs (\$)	\$968,436
	Minimum projected savings (\$)	\$ 96,844



### 13.2.5 Contract Administration and Realignments

This option will not require any basic changes to the organizational structure at NADC since the remainder of the engineering and plant management organizational structure will remain intact. However, mechanics, electricians and plumbers that provide services within the research laboratories would be realigned into the Central Research Building Unit.

One (1) full-time COR would be required to administer the contract should Package Two and Package One be combined. If only Package Two is selected, it would require approximately less than one-half (1/2) a man year to administer the contract. For this package an additional qualified technical representative would be required to administer and inspect contractor operations and maintenance of the boiler and waste plant and for providing maintenance support from the Outside Shops and Utilities unit.

### 13.3 OPTION PACKAGE THREE - ANIMAL SUPPLY

#### 13.3.1 General

This package includes the breeding of animals, animal caretaking, etc. (as discussed in Section 11, above). For the purposes of this package, all animal supply services, both in-house and contract, should be consolidated into one (1) contract package. This package should be presented as a separate bid item because animals used for research must be bred to comply with specific research requirements. As such, a contractor that specializes in breeding animals to meet specific requirements could be more responsive to the special needs of researchers.

#### 13.3.2 Package Activities

#### Authorized Positions

##### Animal Supply Service

● Animal Caretakers	21
● Procurement	<u>1</u>
TOTAL—	22





### 13.3.3 Summary Comparative Advantages/Disadvantages

#### Advantages

- Realize cost economies by combining all in-house and contract supply services into one (1) contract
- No additional COR required when included with Package One
- Specialized contractor can be more responsive to specific research needs

#### Disadvantages

- Animal supply is closely regulated and involves a high degree of control
- Requires separate technical representative due to research nature of animal supply function.

### 13.3.4 Package Impact

#### Authorized Positions

●	<u>Potential Spaces Reduced</u>	22
	Less: Contract administration	-1
	Net Impact	<u>21</u>
●	<u>Actual Staffing</u>	22
	Less: Estimated attrition/placement	-2
	:Retirement	-3
	Net Impact	<u>17</u>
●	<u>Costs</u>	
	Total personnel costs (\$)	\$480,866
	Minimum projected savings (\$)	\$ 48,087



### 13.3.5 Contract Administration and Realignments

If this option is selected, the Chief of Animal Supply or his assistant could serve as technical representatives to the COR in conjunction with their current duties. Under this option, the animal supply section could be combined with another research element.

### 13.4 OPTION PACKAGE FOUR - INSIDE SUPPORT SERVICES (Excluding Central Research Engineering)

#### 13.4.1 General

This package includes those C/I activities that provide support services within the administration building and the animal research laboratories. Package Four includes technical illustration and photography services, laboratory support services (refer to Section 11, above), and library services. This package of C/I activities should not be considered as an option package separate from the other option packages. Rather, it should be combined with Package One or any other package that would attract a single multi-service contractor with a broad employment and support service capability who could provide efficient, responsive and cost-effective support to the research activities.

#### 13.4.2 Package Activities

#### Authorized Positions

##### Laboratory Support Services

● Supply (laundry, Seamstress, incl)	3
● Glassware Preparation	4
● Metalwash	6
● Illustrative and Photography Services	3
● Library Services	2
TOTAL——	<u>18</u>



1. The first part of the document is a list of the names of the people who were present at the meeting. The names are listed in alphabetical order. The names are: John Doe, Jane Smith, and Bob Johnson.

2. The second part of the document is a list of the topics that were discussed at the meeting. The topics are: the current state of the company, the future of the company, and the role of each person.

3. The third part of the document is a list of the actions that were taken at the meeting. The actions are: the company will be expanding its operations, the company will be hiring new people, and the company will be implementing new policies.

13.4.3Summary Comparative Advantages/Disadvantages

Advantages

- Group general inside support functions into one (1) package

Disadvantages

- Package is low priority consideration for contracting unit
- Require contractor to work in biologically restricted areas (Photography and Illustration).

13.4.4Package Impact

●	<u>Potential Spaces Reduced</u>	18
	Less: Contract administration	<u>-2</u>
	Net Impact	16
●	<u>Actual Staffing</u>	16
	Less: Estimated attrition/placement	-1
	:Retirement	<u>-2</u>
	Net Impact	13
●	<u>Costs</u>	
	Total Government costs (\$)	\$352,130
	Minimum projected savings (\$)	\$ 35,213

13.4.5Contract Administration and Realignments

If Package Four is selected as a separate bid package, approximately less than one-half (1/2) a man-year would be required for a COR to administer the contract. If Package One and Package Four are selected, one (1) COR could administer both packages. For this package, an additional qualified technical representative would be required to administer and inspect contractor services. If Package Four is selected, no major changes to the basic organizational structure will be necessary except to eliminate the activities from the government organizational structure and to reduce the size of the laboratory service functions.



## 13.5 OPTION PACKAGE FIVE - PLANNING AND INSIDE SUPPORT

### 13.5.1 General

This package should be used in conjunction with Packages One and Two since it combines the entire engineering and plant management functions into a single contract package. This option includes the review of engineering support provided to the central research laboratories and the review of engineering and planning services. This includes the engineering support provided by the Central Research Unit and the engineering support provided by the electricians, pipefitters, and A/C mechanics within the Shop and Utilities Unit. Since all engineering services would be considered for contract, the role of the engineering and planning unit responsibilities would be greatly reduced. As a result, engineering and planning services should be considered as part of Package Five. A competent multi-service contractor could provide an engineering and planning services capability. With respect to engineering support provided within the research laboratories, there are several multi-service contractors providing these services at federal sites with similar biological safety requirements.

### 13.5.2 Package Activities

### Authorized Positions

#### Engineering and Plant Management

- Central Research Building (including Inside Shops Support)
- Engineering and Planning

24

7

TOTAL—

31

### 13.5.3 Summary Comparative Advantages/Disadvantages

#### Advantages

- Cost economies can be realized with one (1) large engineering and plant management contract once combined with Packages One and Two
- Attract responsible contract management and employees
- One (1) contract reduces conflict between engineering activities and enables operational efficiencies to be realized once combined with Package One and Two.





## Disadvantages

- No in-house workforce to respond to all engineering requirements on a twenty-four (24) hour per day, seven (7) day per week basis
- May require larger safety effort to ensure that contractor complies with biological safety requirements.
- Potential adverse impact on employees.
- Time period to shore to accomplish conversion if Package Five is combined with Packages One or Two.

### 13.5.4 Package Impact

### Authorized Positions

● <u>Potential Spaces Reduced</u>	31
Less - Retained contract administration	<u>-2</u>
Net Impact	29
● <u>Actual Staffing</u>	30
Less - Estimated attrition/placement	-2
:Retirement	<u>-8</u>
Net Impact	20
● <u>Costs</u>	
Total Government costs (\$)	\$708,181
Minimum projected savings (\$)	\$ 70,818

### 13.5.5 Contract Administration and Realignment

If Package Five is selected in conjunction with Package One and Two, one (1) full-time planning engineer and one (1) technical representative, in addition to the contract administration group in Package One and Two, would be required to administer and inspect the contract.



## PART IV

### CONTRACT ENVIRONMENT

#### 14.1 General

ADTECH personnel reviewed the previous lists of potential contractors developed during the CAMAP study. These lists are typical of the contract environment and general interest in the private sector towards support service contracts. ADTECH developed a separate list of general service-multi-functional contractors who in the past have shown interest in providing service such as the commercial-/industrial activities identified at Plum Island and at the National Animal Disease Center.

ADTECH, after developing the list of commercial/industrial type functional activities at each location conducted a limited survey to determine the criteria which various service contractors consider primary. Using this data and the information collected in the field, ADTECH contacted a substantial number of contractor to obtain the overall level of interest based on their specific responses. The list of contractors includes some of these previously listed in the CAMAP study and many others developed by ADTECH's staff. A list of potential contracting firms who will likely have an interest as competitors for an attractive level of effort are provided in Appendix C. Some of the firms listed in the CAMAP are also shown since they were not previously confirmed but were included in the ADTECH survey.

#### 14.2 Contract Environment Survey Findings

In general, ADTECH found what we had expected to find. There are basically two interest groups: Nationwide-Multi-Service Companies and Local and Speciality Companies.

- Nationwide-Multy-Service Companies

ADTECH's survey found that the companies in this category have dedicated staffs which are aligned to provide the full range of support services at almost any location in the United States. While these companies are capable of managing very small contracts, they are quick to point out the potential for achieving improved



productivity through economies of scale, improved personnel management and better coordination in larger contract operations.

A summary of their major comments are as follows:

- All surveyed were interested in both locations and other SEA sites.
- All perform multi-functional services in the general support and plant management areas.
- Many currently provide support in areas where security is a major operating condition. Several operate facilities and laboratories where biological safety is involved
- All people contracted prefer levels of effort that permit establishment of a sound and capable project management office. This ranged in estimated size from 10 - 15 employees and up to the more attractive contracts beginning at about 40-50 man-years of effort.
- Most are only interested in small contracts if the potential for expansion to the above minimum levels is highly probable.
- The larger firms are interested in long-term relationships and are willing to make sizeable investments to prove there worth as fully responsible service contract employers.
- Most had established firm hiring and personnel management systems. Many acknowledge that they are dependent on the use of displaced government employees, particularly during initial conversion periods.
- Many companies are not interested in highly specialized functional areas not basic to their background when it is the primary part of the contract.
- However, most will manage special functions if the rest of the functional areas of the contract are general support activities.



- Most are able to attract fully qualified personnel to meet the specific performance requirements of the contract.
- Local and Specialty Companies

There is a great abundance of local enterprises interested in contracting for support services. Most of these companies are small business or 8(a) minority set aside firms.

- Most are geographically limited in their interest—usually not over two hundred miles.
- Many do not have a large overhead or extensive backup capability. However, few will acknowledge that they would not be able to perform in their specialty.
- Some but not all have sound retirement and benefit programs.
- Most hire only from the local area.
- Many smaller companies are specialty companies which are limited to one or two related functional areas. Usually, they are not interested in projects outside their normal specialty area.
- Many are not interested in complicated government contracts, and some would prefer to work as sub contractors when multi-functional activities or management coordination is involved.
- There is always a lot of interest. If extensive capitalization is involved, the level of real interest drops rapidly.



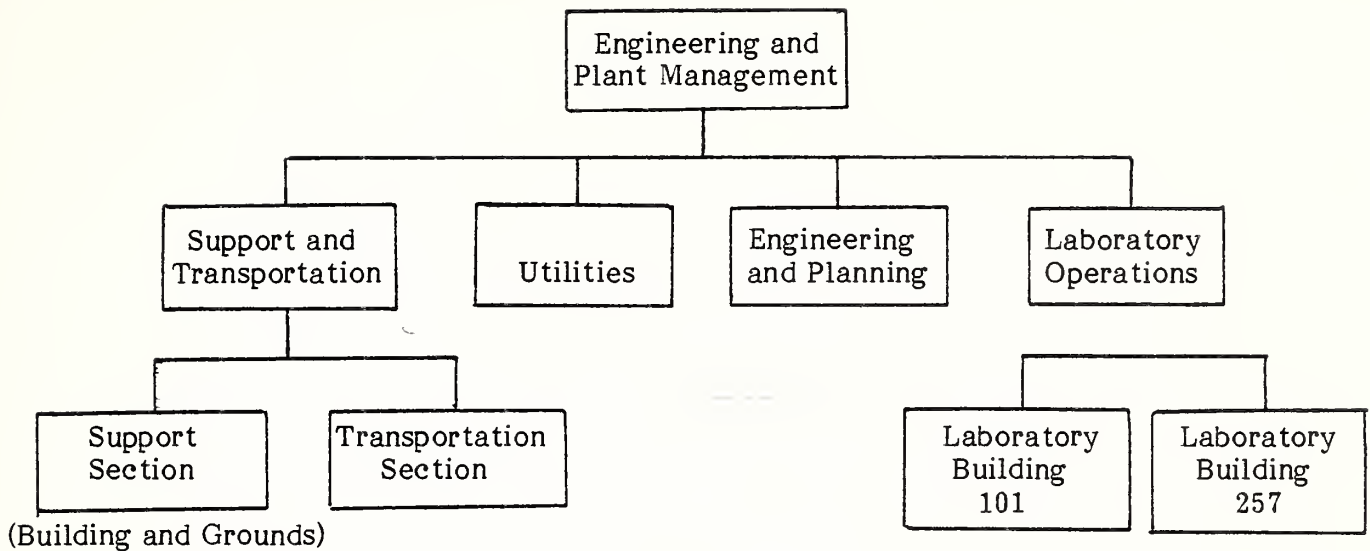


APPENDIX A-1  
PLUM ISLAND ANIMAL DISEASE CENTER

Commercial/Industrial Type Activities Detailed Organizations and Positions

- Engineering and Plant Management
- Safety Office
- Animal Supply
- Management Services
- Office of the Director
- Laboratory Services





#### ENGINEERING & PLANNING UNIT

- 1 Supervisory Mechanical Engineer (GS-12)
- 1 Mechanical Engineer (GS-12)
- 1 Mechanical Engineer Tech (GS-11)
- 1 Engineer Technician (GS-09)
- 1 Engineer Draftman (GS-05)
- 1 Secretary Steno (GS-05)
- 1 Clerk Steno (GS-04)
- 1 Clerk Typist (GS-03)
- 1 Construction Inspector (GS-09)
- 1 Planner/Estimator (WD-08)
- 1 Asst Planner/Estimator (WD-05)

#### SUPPORT SECTION (Building and Grounds)

- 1 Maintenance Mechanic Forman (WS-11)
- 1 Sheet Metal Mechanic (WG-11)
- 1 Engineering Equipment Operator (WG-11)
- 1 Sheet Metal Mechanic (WG-10)



- 1 Engineering Equipment Operator (WG-10)
- 2 Electricians (WG-10)
- 1 Machinest (WG-11)
- 1 Mason (WG-10)
- 1 Welder (WG-10)
- 2 Pipefitters (WG-10)
- 1 Carpenter (WG-10)
- 2 Carpenters (WG-10)
- 1 Sheet Metal Worker (WG-08)
- 3 Motor Vehicle Operators (WG-07)
- 2 Tractor Operators (WG-06)

#### UTILITIES SECTION

- 1 Utility Sys. Rep/Oper. Forman (WS-10)
- 1 Utility Sys. Rep/Oper. Forman (WS-07)
- 4 Utility Sys. Rep/Oper. Forman (WS-07)
- 5 Utility Sys. Rep/Oper. (WG-10)
- 4 Electricians (WS-10)
- 1 Electrician High Voltage (WG-10)
- 5 Utility Sys Rep/Oper (WG-09)
- 1 Utility Sys. Rep/Oper (WG-09)
- 1 Utility Sys Rep/Oper (WG-07)

#### LABORATORY OPERATIONS SECTION

- 1 Utility Sys Rep/Oper Gen Forman (WS-13)
- Laboratory Building 101
  - 1 Maintenance Mechanic Foreman (WS-10)
  - 1 Tools and Parts Attendent (WG-04)
  - 2 Air Condition Equipment Mechanics (WG-10)
  - 5 Electricians (WG-10)
  - 2 Pipefitters (WG-10)



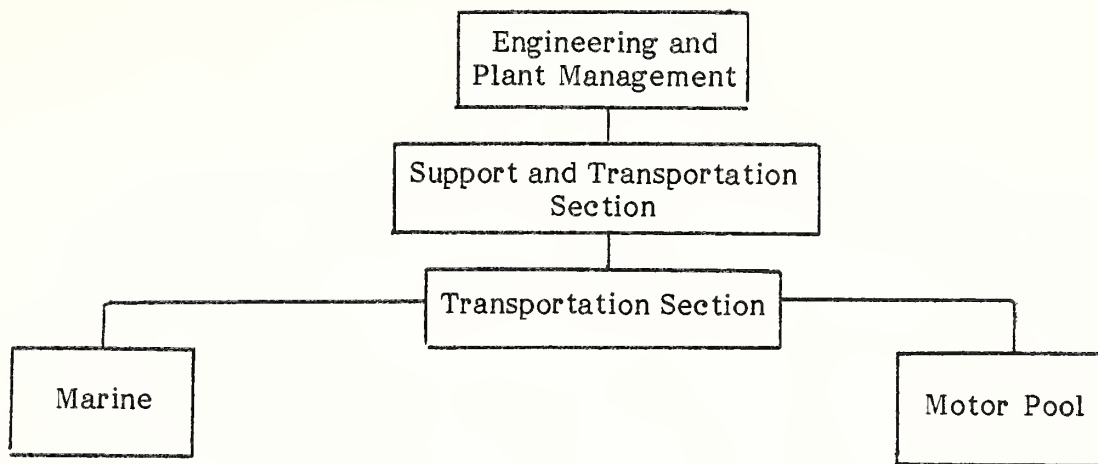
- 7 Maintenance Mechanics (WG-10)
- 1 Utility Sys Rep/Oper (WG-09)
- 1 Painting Worker (WG-07)
- 1 Maintenance Mechanic (WG-09)
- 3 Maintenance Workers (WG-08)
- 5 Maintenance Mechanics Helpers (WG-05)

- Laboratory Building 257

- 1 Utility Sys Rep/Oper Foreman (WS-10)
- 1 Air Condition Equipment Mechanic (WG-10)
- 1 Electrician (WG-10)
- 5 Boiler Plant Equipment Mechanics (WG-10)
- 4 Utility Sys Rep/Oper (WG-09)
- 1 Painter (WG-09)
- 5 Utility Sys Rep/Oper (WG-08)







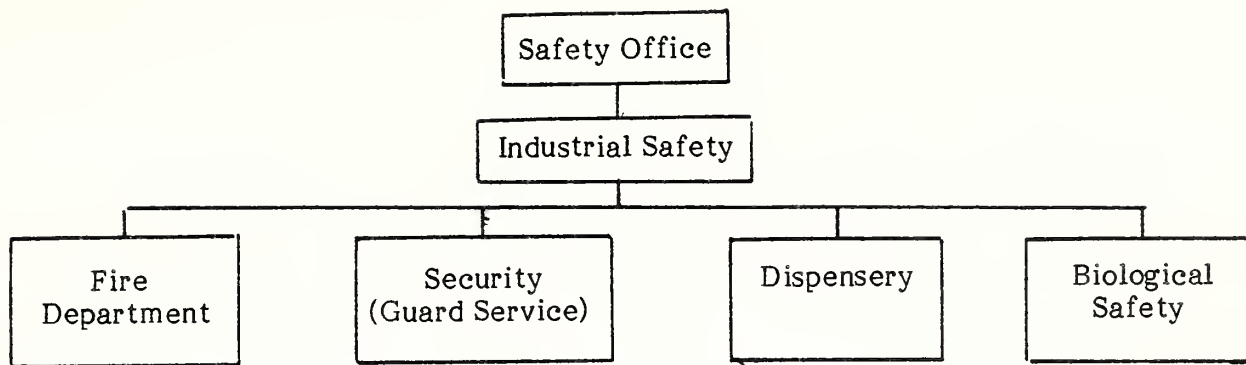
#### MARINE UNIT

- 1 Captain (WM-10)
- 1 Pilot (WM-10)
- 3 Boat Operators (WM-10)
- 3 Chief Engineers (Diesel) (WM-00)
- 1 Engineer (Non-Licensed) (WM-00)
- 3 Deckhands (WM-00)
- 1 Deckhand (WM-00)

#### MOTOR POOL

- 1 Automatic Mechanic/Vehicle Inspector (WG-11)





### FIRE DEPARTMENT

6 Firefighters (structural) (GS-05)

### SECURITY

1 Guard Supervisor (GS-06)

10 Guards (GS-04)

### DISPENSARY

1 Occupational Health Nurse (GS-09)

Occupational Health Nurses (GS-09) (WAE)

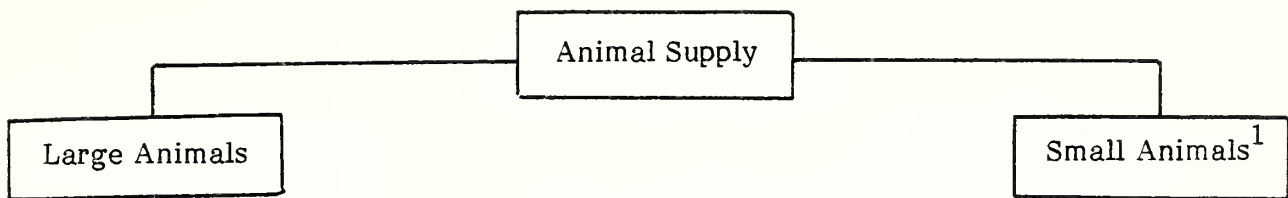
### BIOLOGICAL SAFETY

1 Supervisory Microbiologist (GS-13)

1 Supervisory Safety Technician (GS-08)

9 Safety Technicians (GS-06)





### ANIMAL SUPPLY OFFICE<sup>2</sup>

- 1 Veterinary Medical Officer (GS-13)
- 1 Veterinary Medical Officer (GS-11)
- 1 Secretary (GS-05)

### LARGE ANIMALS

- 1 Animal Caretaker Foreman (WS-04)
- 3 Animal Caretakers (WG-05)
- 1 Tractor Operator (WG-06)

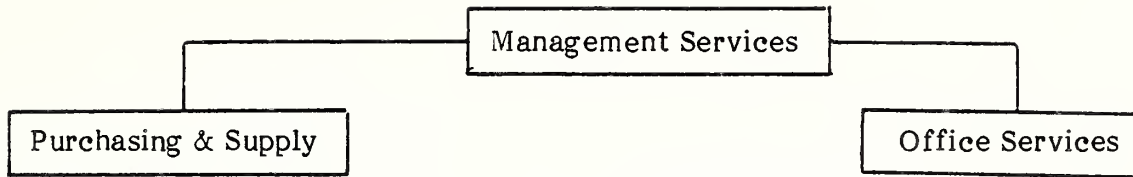
### SMALL ANIMALS<sup>1</sup>

- 1 Animal Caretaker Foreman (WS-03)
- 9 Animal Caretakers (WG-04)
- 1 Animal Caretaker (WG-03)
- 2 Laborers (WG-02)

<sup>1</sup>In process of disestablishment, Small Animals to be procured directly from supplier  
(Excluded from C/I study)

<sup>2</sup>Consideration essential to research mission and contract/program supervision.





## PURCHASING AND SUPPLY

- 1 Supervisory Supply Technician (GS-08)
- o PURCHASING<sup>1</sup>
  - 1 Purchasing Agent/Typ (GS-06)
  - 1 Purchasing Agent/Typ (GS-05)
  - 1 Clerk Dict. Machine Transcriber (GS-04)
  - 1 Clerk Typist (GS-03)
- o SUPPLY
  - 1 Supply Clerk (GS-04)
  - 1 Clerk Typist (GS-03)
- o RECEIVING
  - 1 Warehouse Foreman (WS-04)
  - 1 Motor Vehicle Operator (WG-08)
  - 2 Motor Vehicle Operators (WG-07)
  - 2 Motor Vehicle Operators (WG-05)
- o WAREHOUSING
  - 1 Warehousing Fireman (WS-04)
  - 2 Motor Vehicle Operators (WG-07)
  - 2 Warehouseman (WG-05)

## OFFICE SERVICES

- 1 Office Service Supervisor (GS-07)
- 1 Clerk Typist (GS-03)
- o CAFETERIA
  - 2 Cooks (WG-05)

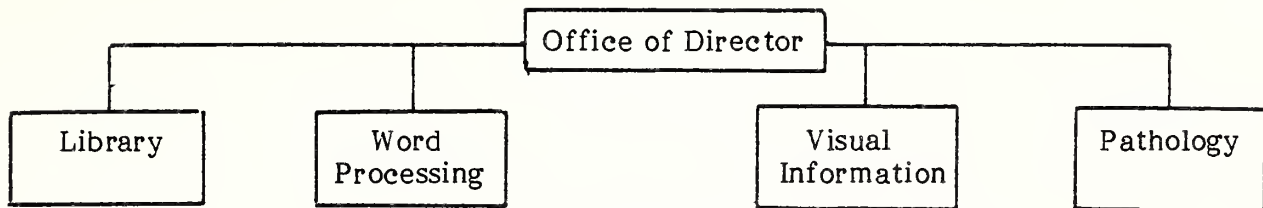
<sup>1</sup>Essential to management and procurement/contract administration support





- o JANITORIAL  
1 Janitor (WG-02)
- o LAUNDRY AND REPRODUCTION  
1 Laundry Machine Operator
- o RECORDS MANAGEMENT  
1 Mail and Files Clerk/Typist (GS-05)  
1 Mail and Files Clerk/Typist (GS-03)
- o SWITCHBOARD  
1 Telephone Operator (GS-03)
- o TRANSPORTATION (Currier on Island)  
1 Motor Vehicle Operator (WG-05)





#### LIBRARY-TECHNICAL

- 1 Librarian (Biology and Physical Science (GS-11)
- 1 Librarian Technical (GS-05)

#### WORD PROCESSING SECTION

- 1 T-Lead Clerk Typist (GS-04)
- 3 Clerk Typists (GS-03)
- 1 T-Clerk Typist (GS-03)

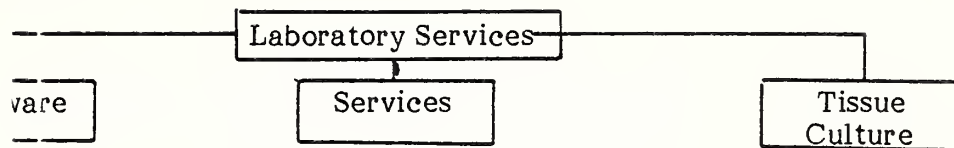
#### VISUAL INFORMATION

- 1 Veterinarian Medical Officer (Training Specialist) (GS-12)
- 1 Photographer (GS-07)

#### PATHOLOGY

Considered an essential research activity.





ory Worker Leader (WL-03)

ory Workers (WG-03)

ory Worker (WG-03)

EF<sup>1</sup>

ory Biological Laboratory Technician (GS-08)

al Laboratory Technicians (GS-05)

al Aids (GS-04)

Machine Operators (WG-05)

Maching Opertor (WG-04)

; (WG-03)

ered essential research-not a pure C/I support activity - could be  
ck age.



# APPENDIX A-2

## REAL PROPERTY BUILDING INVENTORY

<u>Bldg. No</u>	<u>Title</u>	<u>Gross Sq. Feet Area</u>	<u>Capitalize<sup>1</sup> Investment Value</u>
<u>Plum Island</u>			
W	Warehouse	17,600	
L	Plum Island Lighthouse <sup>2</sup>	\$2,630	
259	Garage	370	\$1,500
258	Guard House and Transfer	1,110	\$2,420
257	Laboratory	40,750	\$1,827,617
256	Electrical Substation	350	
232	Assembly Hall	3,360	\$42,754
228	Cobalt Building	400	\$2,434
227	Paint Shop	400	\$2,809
226	Storage	400	\$1,464
115	Well and Pipe Pump House	550	\$35,447
106	Guard House	600	\$12,820
105	Sewage Plant Control	400	
104	Feed Transfer	480	
104	Feed Storage	480	
103	Power Plant	8,380	\$1,072,186
102	Sewage Decontamination Building	11,740	\$656,412
101	Laboratory	209,300	\$7,020,427
94	Incinerator	640	\$62,186
93	Spray Wash	350	
92	Shower and Change	280	
91	Hay Storage	150	
90	Battery Steele	10,960	\$121,322
70	Equipment Storage	2,740	\$3,300
69	Submarine Cable Terminal Building	180	
68	Dock Repair Shop	710	\$2,296
67	Dock Warehouse	4,060	\$8,047
66	Kyle Breaker House	240	\$2,118





65	Dock Warehouse	6,000	\$67,124
64	Boat House	300	
63	Laboratory Animal & Breeding	12,290	\$227,581
62	Large Animal Holding	24,500	\$199,351
61	Water Reservoir		
60	Laboratory Animal Breeding	13,770	\$103,942
59	Well Pump House	800	\$29,417
58	Warehouse	3,350	\$9,780
55	Warehouses, Administrative and Emergency Housing	39,960	\$480,229
54	Engineering and Plant Maintenance	21,500	\$67,470
49	Cafeteria	7,650	\$124,071
47	Duty Officers' Quarters	1,700	\$10,638
44	Warehouse	2,660	\$28,239
38	Motor Pool	4,220	\$44,147
37	Warehouse	9,600	\$53,024
35	Dock Guard House	3,830	\$125,493
26	Electrical Substation	330	
25	Battery Engineers Laboratory Animal Breeding	3,140	\$99,431
24	Composter	1,660	\$144,000
21	Animal Quarantine	7,190	
15	Chlorinator Building	80	
14	Administration	21,510	\$186,511
13	Fire Station	2,300	
			\$27,018

#### Orient Point

5	Electrical Breaker House	160	\$69,039
3	Truck Terminal	2,250	\$19,934
2	Warehouse and Garage	2,730	\$32,958
1	Office	2,890	\$13,457

<sup>1</sup>Investment values shown not readily available from local real property records

<sup>2</sup>Coast Guard property to be transferred to USDA SEA.

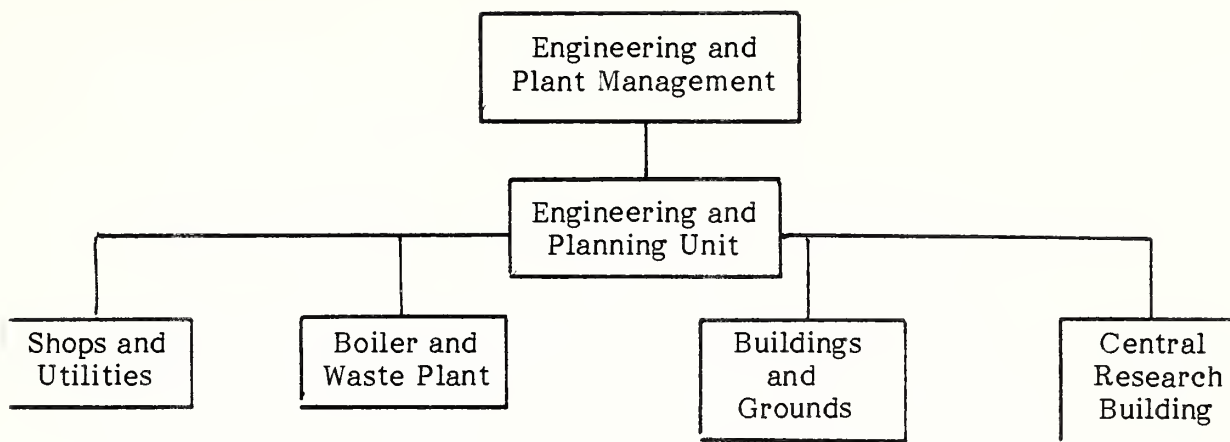


APPENDIX B  
NATIONAL ANIMAL DISEASE CENTER

Commercial/Industrial Type Activities Detailed Organizations and Positions

- o Engineering and Plant Management
- o Illustration and Photography
- o Library
- o Animal Services
- o Management Services
- o Laboratory Services
- o Safety Office





#### ENGINEERING AND PLANNING

- 1 Supervisory General Engineer (GS-11)
- 4 Industrial Engineer Technicians (GS-09)
- 1 Engineer Draftsman (GS-05)
- 1 Supply Clerk (GS-05)

#### BOILER AND WASTE PLANT

- 1 Utility Systems Foreman (WS-10)
- 4 Boiler Plant Operators (WG-11)
- 4 Utility System Operators (WG-10)
- 3 Utility System Operators (WG-09)
- 5 Utility System Operators (WG-08)

#### CENTRAL RESEARCH BUILDING

- 1 Maintenance Mechanic Foreman (WS-10)
- 2 Electricians (WG-10)
- 3 Utility System Operators (WG-10)
- 1 A/C Mechanic (WG-10)
- 4 Maintenance Workers (WG-08)
- 1 Janitor Leader (WL-02)
- 1 Maintenance Worker (WG-05)
- 1 Incinerator Operator (WG-05)
- 1 Laborer (WG-02)
- 2 Janitors (WG-2)
- 2 Laborers (WW-02)
- 1 Janitor (WW-02)
- 3 Laborers (WW-01)



### SHOP UTILITIES

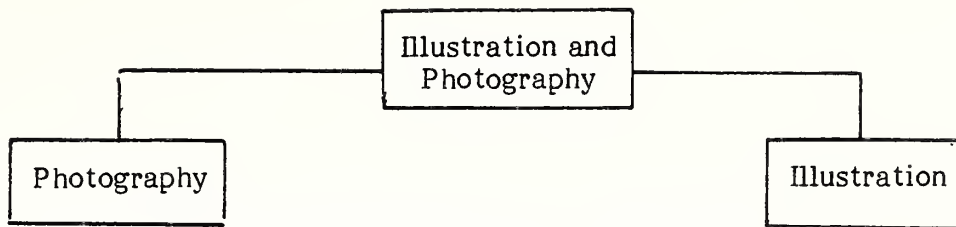
- 1 Maintenance Foreman (WS-10)
- 2 Electricians (WG-10)
- 2 Machinists (WG-10)
- 2 Masons (WG-10)
- 2 Welders (WG-10)
- 3 Sheet Metal Mechanics (WG-10)
- 2 Pipefitters (WG-10)
- 1 A/C Mechanic (WG-10)
- 3 Auto Mechanics (WG-10)
- 1 Painter (WG-09)
- 3 Carpenters (WG-09)
- 1 Laborer (WW-01)

### BUILDING AND GROUNDS

- 1 Maintenance Foreman (WS-10)
- 1 Electrician (WG-10)
- 2 A/C Mechanics (WG-10)
- 2 Equipment Operators (WG-10)
- 2 Equipment Operators (WG-10)
- 2 Maintenance Workers (WG-08)
- 2 Maintenance Operators (WG-08)
- 1 Laborer (WG-03)
- 1 Laborer (WG-02)







- 1 Visual Information Officer (GS-11)
- 1 Photographer (GS-09)
- 1 Illustrator (GS-09)

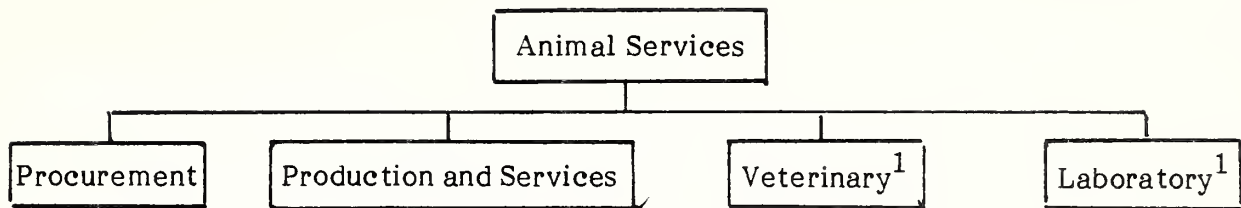


Library

1 Administrative Librarian (GS-11)

1 Library Technician (GS-04)





### PROCUREMENT

- 1 Supply Specialist (GS-08)

### PRODUCTION SERVICES

- 1 Animal Caretaker Supervisor (WS-05)

#### SWINE (Nat. farrowed)

- 1 Animal Caretaker Leader (WL-05)
- 2 Animal Caretakers (WG-05)
- 2 Animal Caretakers (WG-04)

#### POULTRY & HDGD SWINE

- 1 Animal Caretaker Leader (WL-05)
- 3 Animal Caretakers (WG-05)
- 1 Animal Caretaker (WG-04)

#### BURNING & LAUNDRY

- 2 Motor Vehicle Operators (WG-05)

#### SMALL ANIMALS

- 1 Animal Caretaker Leader (WL-05)
- 1 Animal Caretaker (WG-05)
- 2 Animal Caretaker (WG-04)
- 1 Laborer (cage wash) WG-03)

#### CATTLE, SHEEP & HORSES

- 1 Animal Caretaker Leader (WL-05)
- 2 Animal Caretakers (WG-05)
- 1 Animal Caretaker (WG-03)

#### OSH KOSH

- 2 Motor Vehicle Operators (WG-07)



#### VETERINARY SERVICES

- 1 Supervisory Veterinary Medical Officer (GS-12)
- 2 Biological Technicians (GS-06)
- 8 Animal Caretakers (WG-02)

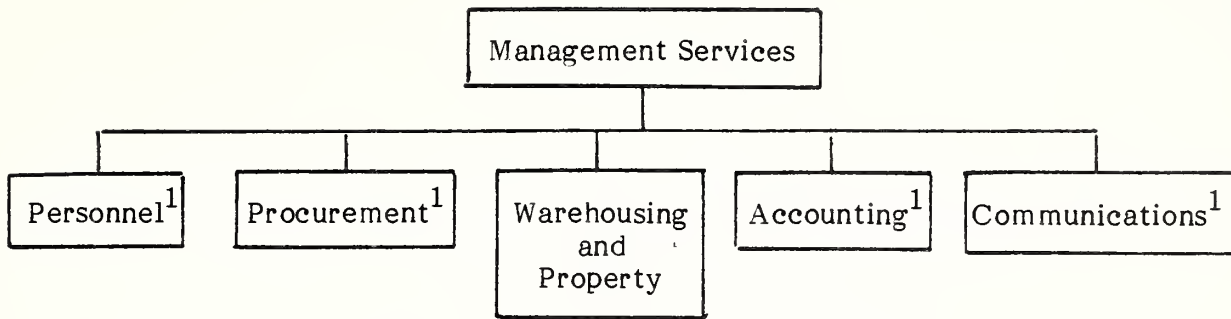
#### LABORATORY UNIT

- 1 Microbiologist (GS-09)
- 2 Biological Aids (GS-04)
- 1 Biological Aid (GS-03)

<sup>1</sup>Considered essential to the mission, therefore exempt from C/I Program.







#### WAREHOUSING/PROPERTY

- 1 Supervisor (GS-7)
- 2 Supply Technicians (GS-06)
- 2 Warehousemen (WG-05)
- 2 Motor Vehicle Operators (WG-06)
- 1 Laborer (WG-03)

#### PERSONNEL

- 1 Personnel Assistant (GS-07)
- 1 Clerk Typist (GS-05)
- 1 Clerk Typist (GS-04)

#### PROCUREMENT

- 1 Supervisory Purchasing Agent (GS-07)
- 1 Purchasing Agent (GS-06)
- 1 Purchasing Agent (GS-05)
- 2 Purchasing Agents (GS-04)
- 2 Clerk Typist (GS-03)

#### ACCOUNTING

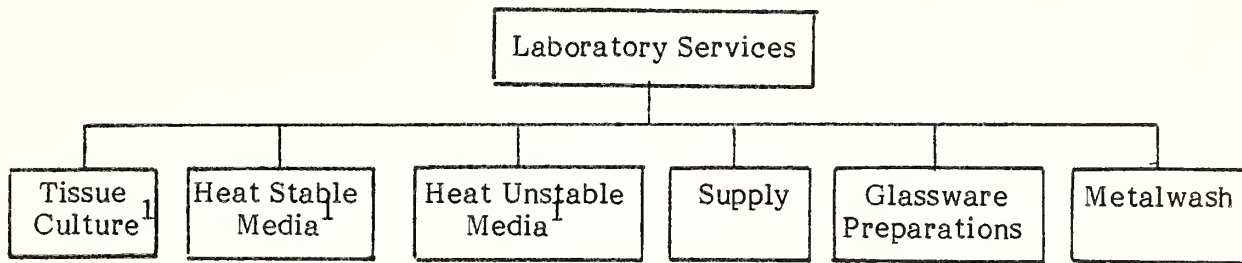
- 1 Budget and Accounting Officer (GS-09)
- 1 Travel Clerk (GS-06)
- 1 Accounts Technician (GS-05)
- 1 Clerk Typist (GS-03)

#### COMMUNICATIONS

- 1 Office Services Supervisor (GS-07)
- 1 Mail Clerk (GS-03)
- 1 Office Machine Operator (GS-03)
- 1 Telephone Operator (GS-04)
- 1 Clerk Typist (GS-02)

<sup>1</sup>Considered essential to the mission, therefore exempt from C/I Program.





### SUPPLY

- 1 Supply Clerk (GS-05)
- 1 Seamstress (WG-03)
- 1 Laundry Worker (WG-02)

### GLASSWARE PREPARATION

- 1 Biological Aid (GS-03)
- 2 Biological Aids (GS-02)

### METALWASH

- 1 Laboratory Worker Leader (WL-04)
- 3 Laboratory Workers (WG-04)
- 2 Laboratory Workers (WG-02)

### TISSUE CULTURE

- 1 Supervisory Lab Technician (GS-07)
- 3 Lab Technicians (GS-05)
- 1 Biological Aid (WG-02)

### HEAT STABLE MEDIA

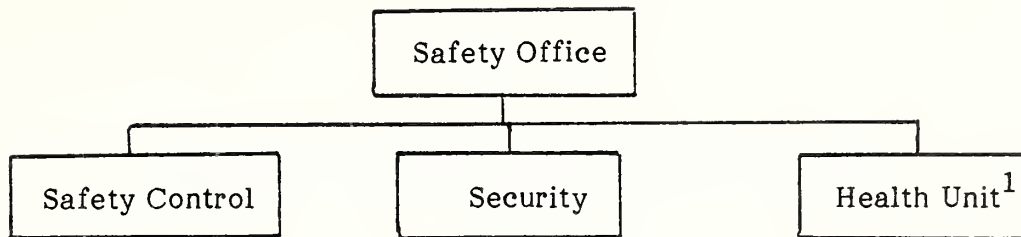
- 1 Supervisory Lab Technician (GS-07)
- 4 Lab Technicians (GS-05)
- 2 Biological Aids (GS-04)
- 1 Biological Aid (GS-02)
- 1 Biological Aid (GS-01)

### HEAT UNSTABLE MEDIA

- 1 Supervisory Lab Technician (GS-07)
- 1 Lab Technician (GS-05)
- 2 Biological Aids (GS-04)

<sup>1</sup>Considered essential to the mission, therefore exempt from C/I Program.





#### SECURITY

3 Guards (GS-04)

#### SAFETY CONTROL

- 1 Supervisory Microbiologist (GS-14)
- 1 Environmental Health Technician (GS-08)
- 1 Safety Technician (GS-05)
- 1 Clerk Typist (GW-02)

#### HEALTH UNIT

- 1 Occupational Health Nurse (GS-09)

<sup>1</sup>Considered essential to the mission, therefore exempt from C/I Programs.



## APPENDIX C

### MULTI-FUNCTIONAL SERVICE CONTRACTORS

The following is a list of contracting firms which provided the basis for the ADTECH survey of contractor interests as shown in Part III of the report. All have previously shown interest in multi-service contracts.

#### Title/Address

A R & S Enterprises, Inc.  
P.O. Box 35194  
Fayetteville, NC 28303

Automation Industries, Inc.  
Virto Service Division  
Industrial Park  
Fort Walton Beach, Fl 32548

Avco International Services Division  
12011 Mosteller Road  
Cincinnati, OH 45241

Baker Avionics  
P.O. Box 1486  
Warner Robins, Georgia 31093

Bendix Field Engineering Corp  
92550 Route 108  
Columbia, MD 21045

Boeing Services International, Inc.  
P.O. Box 220  
Coco Beach, FL 32920

Butler Services Group  
311 Park Avenue  
Falls Church, Va 22046

CSRA Business League  
1208 Laney-Walker Blvd.  
Augusta, GA 30901

Dyneteria, Inc.  
P.O. Box 456  
Dunn, NC 28334

Dynalelectron Corporation  
1313 Dolley Madison Blvd.  
McLean, Virginia





Logistical Support, Inc.  
P.O. Box 9024  
El Paso, Texas 79982

Ford Aerospace and Communications Corp.  
3900 Welsh Road  
Willow Grove, PA 19090

Gemini Services, Inc.  
P.O. Box 12067  
Columbus, GA 31907

Global Associates  
2010 Webster St. Suite 300  
Oakland, CA 94612

The Greyhound Corporation  
Greyhound Tower  
111 W. Clarendon Street  
Phoenix, AZ 85077

Hawthorn Aviation  
P.O. Box 580  
Fort Huachuca, AZ 85613

Hughes Aircraft Company  
Support System Division  
Bldg. 116/MS50  
P.O. Box 90515  
Los Angeles, CA 90095

ITT Federal Electric  
521 Industrial Avenue  
Paramus, New Jersey 07652

Jets Services  
2721 Park Street  
Jacksonville, FL 32205

Kentron International, Inc.  
2345 W. Mockingbird  
Dallas, Texas 75234

Lear Siegler, Inc.  
3100 North I-35  
Oklahoma City, OK 73136

Lockheed Electronics  
1830 Nasa Road 1  
Houston, Texas 77058

M & M Services, Inc.  
P.O. Box 1118  
Dunn, NC 28334



g Aircraft  
ox 850  
ido Springs, CO 80901

Service Contractors  
awnut Street  
ondon, Connecticut 06320

op Page Technical Services, Inc.  
Maple Avenue West (Dept 520)  
y, VA 22180

op Worldwide Aircraft Services, Inc.  
ox 108  
n, OK 73502

merican World Airways  
pace Services Division  
forth Atlantic Avenue  
Beach, FL 32931

t Food Services  
n Road  
hill, LA 71075

ng Research Corporaton  
Old Springhouse Road  
n VA 22101

Service Company  
ng 202-1  
en, NJ 08101

ec n Service Company  
er Lab.  
side Road  
gton, MA 01803

ed Services  
ox 29100  
rleans, LA 70189

ir, Inc.  
ox 1669  
ille, TX 75401

A merica, Inc.  
eesburg Pike  
Church, VA 22043

& Sons, Inc.  
ox 215  
r Springs, KS 66012



Vinnell Corporation  
1145 Westminster Avenue  
Alhambra, CA 91803

Pacific Architect & Engineer  
1800 M Street, NW,  
Suite 640 South  
Washington, D.C. 20036





